43616

ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS, AND PLACES OF GROWTH:

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE ACADEMIES OF STOCKHOLM, UPSAL, TURIN, LISBON, LUND, PHILADELPHIA, AND THE NAT. HIST. SOCIETY OF PARIS;
PRESIDENT OF THE LINNÆAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F.L.S.

——"VIRESQUE ACQUIRIT EUNDO."——VIRG.

VOL. VII.

LONDON:

PRINTED BY J. DAVIS,

And sold by the Proprietor J. SOWERBY, No: 2, Mead Place, near the Asylum; by Messrs. WHITE, Fleet-street; JOHNSON, St. Paul's Church-yard; DILLY, in the Poultry; and by all Booksellers, &c. in Town and Country.

MDCCXCVIII.

G.R. III.
BRITISH MUSEUM

PREFACE

TO THE

SEVENTH VOLUME

OF

ENGLISH BOTANY,

IN entering upon a Seventh Volume of this work, I embrace the opportunity of thankfully acknowledging the increaſing favour with which it continues to be received by the Public in general, as well as the particular aſſiſtance it every day experiences from thoſe friends of Mr. Sowerby and myſelf who enrich it by their communications. Theſe communications are indeed ſo copious, that, from the limited form of the publication, we find it ſometimes impoſſible to admit them all ſo early as we could wiſh, without neglecting more common though perhaps not leſs intereſting or uſeful ſubjects. On this point, as well as every other relative to the choice of plants or of matter, we hope thoſe who patronize the work will give us credit for a ſincere deſire to accommodate all the Students of Indigenous Botany, in their various objects, as much as poſſible. It is our ambition by degrees to include every vegetable production of Britain, except the *Fungi*, now publiſhing by Mr. Sowerby alone, in a

ſeparate work. Our original views indeed were more limited, but ſeven years progreſs has enlarged them. Such plants as were already figured in Mr. Curtis's *Flora Londinenſis*, it was thought might be omitted; but to that a great number of our moſt intelligent purchaſers objected, and we have for many reaſons acceded to their opinion. It is not without concern that we have found the Editor of that truly valuable work has taken offence at this publication, as claſhing with his, which was by no means our aim or deſire. On the contrary, I no ſooner heard of his diſpleaſure, than I told him, "if he thought the book likely at all to interfere with the ſucceſs of his *Flora*, we would confine it to ſuch plants as were not to be found within ten miles of London," the limits he had originally preſcribed to himſelf. His anſwer was, that "he ſhould ever conſider our undertaking, in any form, as in all reſpects hoſtile to his:" an anſwer I received with regret, having till then kept up a moſt friendly botanical intercourſe with him; and I record it now merely that the Public may underſtand the real ſtate of the caſe.

However averſe to literary controverſies, being in general I truſt better employed, I muſt notice a German review of the third volume of Engliſh Botany, in the *Gottingiſche Anzeigen* for the 8*th* of April 1797: this however I ſhould not do, eſpecially as it comes from an anonymous hand, did I not find myſelf in ſome reſpects juſtly corrected by it. The author truly remarks, upon *Bryum rigidum*, t. 180, that what I have hitherto called the *flower-ſtalk* of moſſes, ought to

to be named the *fruit-ſtalk*, as elevating the germen only. But, ſpeaking of the genera of theſe plants, he ſays, very uncandidly, "The Engliſh have no ideas of the botanical revolutions in Germany, but go on all in the old ſtyle, ever averſe to reform or improvement." It is eaſy to ſee the political alluſion of this paragraph, which comes very ill from a German. I can only ſay, I wiſh Engliſhmen ever to be guided by reaſon and truth, guarded equally againſt corruption or ſophiſtry at home, and maintaining the dignity of experienced teachers, rather than learners abroad. As to the point in queſtion, the Engliſh are neither ignorant nor inattentive. I muſt claim the honour of having firſt given an account in this country of the great Hedwig's diſcoveries (ſee Diſſertation on the Sexes of Plants, publiſhed in 1786, p. 60), and have, under t. 180 above mentioned, aſſigned the reaſons why I heſitated about adopting his generic characters, as being almoſt entirely artificial. More experience may alter my opinion, but hitherto it remains as it was. The German critic complains, that the ſtalk of *Pinguicula luſitanica*, t. 145, is not repreſented hairy. To this an inſpection of the plate affords a ſufficient anſwer. It is his opinion that t. 174 contains two very different ſpecies under *Lichen uncialis*; that *Pyrus Malus*, t. 179, had better be deſcribed with a *ſimple* rather than a *ſeſſile* umbel; that *Salix repens*, t. 183, is the *depreſſa* of Hoffmann; that *Lichen immerſus*, t. 193, is doubtful; and that in *Marchantia*, t. 210, the receptacle or *diſcus* is taken for a calyx. This laſt is a matter of opinion, which I do not ſee any reaſon

to give up. In other reſpects he very liberally praiſes the work, and certainly honours the author by what he has ſaid of him.

The genera of Moſſes is but an unimportant point, compared with that on which I am unhappily obliged to diſſent from many moſt reſpectable writers, the Reform, as it is called, of the Linnæan Syſtem. Every young beginner thinks himſelf a judge of ſyſtems, and, as far as they are artificial, every one may eaſily be ſo. But, in natural ſyſtems, the moſt experienced botaniſt can as yet be but a learner; and raſh indeed is that hand which would make an eſtabliſhed artificial ſyſtem abundantly leſs natural than it was originally, without rendering it at all more eaſy. Linnæus could certainly have formed his ſyſtem upon *number* alone, but he wiſely judged *ſituation* and *proportion* might conveniently be taken into conſideration. To his claſs *Polygamia* many ſtudents of tropical plants juſtly objected in his lifetime, and he, as well as his ſon, liſtened to their obſervations. For my own part I could wiſh all the plants of that claſs, as well as the *Monœcia* and *Diœcia*, to be removed to the hermaphrodite ones, except ſuch as have a difference of ſtructure in the different flowers; for, where that is the caſe, the flowers can never vary one into the other, nor the two ſexes become united in one flower. By this means many moſt natural orders of Monœcious or Diœcious plants would ſtill be kept by themſelves, which have no affinity with any in the other claſſes, and only encumber them. Perhaps the order *Syngeneſia Monogamia* might be properly aboliſhed; but the

the other orders of that claſs require to be phyſiologically and deeply ſtudied, in a manner that lies out of the ken of moſt of theſe reformers. Such plants as do not properly belong to the *Gynandria* ought undoubtedly to be removed from thence; but this is no reaſon why others, as the *Orchideæ*, ſhould not remain there. Above all, the union of *Icoſandria* with *Polyandria*, is the moſt prepoſterous and ill-judged attempt that has yet been made upon the Linnæan ſyſtem. A great deal more might be ſaid upon this ſubject, and I have often thrown out hints relative to it in the courſe of the preſent work. I reſpect and applaud every ſtep towards a knowledge of natural arrangement, but I moſt heartily diſapprove of every whimſical alteration, in an artificial ſyſtem that has been found to anſwer its intended purpoſe. Who would not thank the writer of a dictionary for every improvement in etymology and the true meaning of words? but who would admire him for deranging the alphabet, jumbling b p and v, c g and k, or perhaps all the vowels together, to accommodate thoſe whoſe intellects were not competent to count to twenty-four? The work of Dr. Withering, being a book of primary importance, has drawn from me theſe remarks, he having in his third edition adopted ſome of the above alterations. I lament the confuſion that is thereby introduced, and the ſtill greater which may follow from ſuch an example; but I put in my proteſt only to be conſidered, not blindly followed, and I keep my own mind ever open to conviction on this and I hope every ſubject; for he who does not,

deſerves

deſerves no credit for any opinions he may entertain.

It remains only to add, that, for brevity's ſake, I ſhall in future quote the uſual authors as follows:

Withering's third edition—*With.*——When the ſecond and third volumes are referred to, citing only the page—

Hudſon's Flora, ſecond edition———*Hudſ.*
Relhan's Flora Cantabrigienſis———*Relh.*
Sibthorp's Flora Oxonienſis———*Sibth.*
Lightfoot's Flora Scotica———*Lightf.*

J. E. SMITH.

Norwich,
Nov. 1, 1797.

Nov.r 1797 Published by J.s Sowerby London.

LINNÆA borealis.

Two-flowered Linnæa.

DIDYNAMIA Angioſpermia.

GEN. CHAR. *Calyx* double; that of the fruit 2-leaved; that of the flower in 5 diviſions, ſuperior. *Cor.* bell-ſhaped. *Berry* dry, 3-celled.

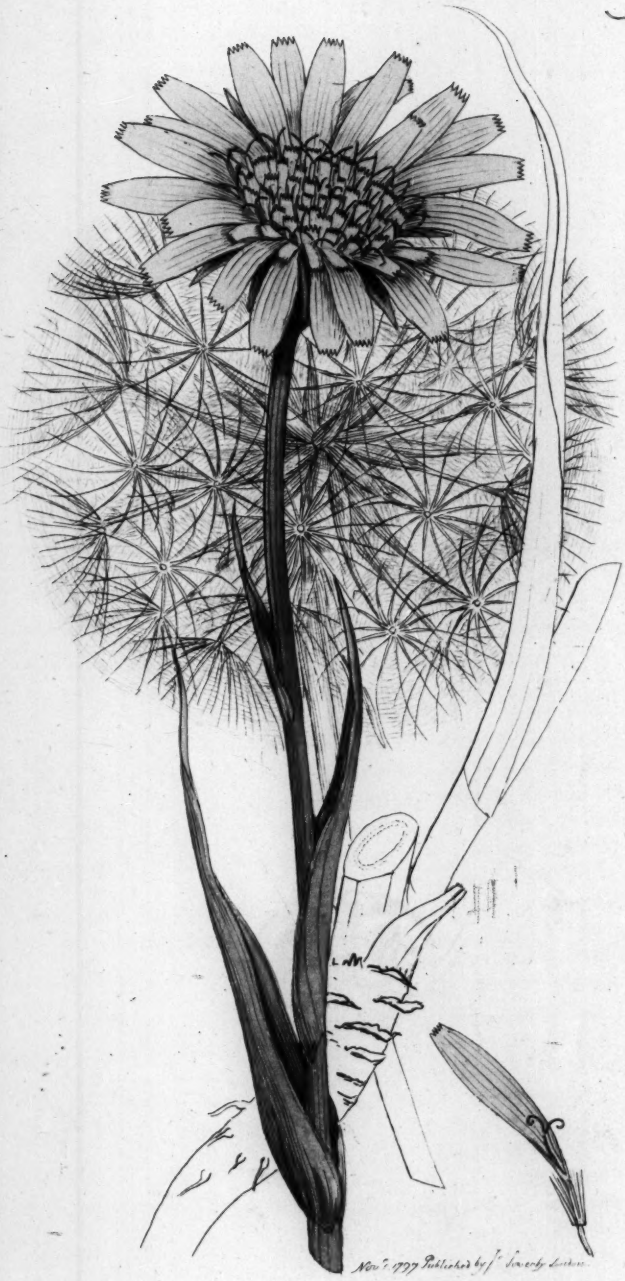
SPEC. CHAR. . . . . .

SYN. Linnæa borealis. *Linn. Sp. Pl.* 880. *Fl. Suec.* 219. *t.* 1. *Fl. Lapp. ed.* 2. 214. *t.* 12. *f.* 4. *Ait. Hort. Kew. v.* 2. 358. *Oed. in Fl. Dan. t.* 3. *Lamarck Fl. Franc. n.* 946. *Hall. Helvet. n.* 299. *Hoffm. Fl. Germ.* 221. *Tranſ. of Linn. Soc. v.* 3. 333. *With.* 556.

FOR this moſt intereſting addition to the Britiſh Flora we are indebted to Profeſſor James Beattie jun. of Aberdeen, who diſcovered it in an old fir wood at Mearns in that neighbourhood, and communicated wild ſpecimens, along with an accurate coloured drawing, to the Linnæan Society, June 2d, 1795. For the diſſection of the flower only, which is a little magnified, we have been obliged to have recourſe to a garden ſpecimen. The *Linnæa* grows in dry ſtony moſſy woods, flowering in May or June; and, as it has been found in Sweden, Germany, Switzerland, and the ſouth of France, it ſeems wonderful that it ſhould not long ago have been obſerved in Britain. This diſcovery, and ſome others we have of late had the pleaſure of announcing, may encourage our domeſtic botaniſts to truſt that the ardour and accuracy, in which they eminently excel thoſe of moſt other nations, has not yet received its full reward, and that further acquiſitions ſtill remain to be made.

Root fibrous. Stems trailing, creeping, perennial, woody, round, leafy, a little branched, very long; the younger ſhoots ſlightly hairy. Leaves oppoſite, on footſtalks, roundiſh or ovate, veiny, crenate in the forepart, paler beneath, with a few ſcattered hairs above. Flowering branches erect, 3 or 4 inches high, with a pair or two of leaves near the bottom, naked above, terminating in 2 equal flower-ſtalks with a pair of ſmall leaves at their baſe, and each bearing one drooping flower accompanied by two ſmall lanceolate bracteæ. Outer calyx of 2, often 4, roundiſh concave leaves, cloſely embracing the germen, which is roundiſh and crowned by the inner calyx, which conſiſts of 5 deep equal lanceolate ſegments, ſurrounding the tube of the flower. Corolla bell-ſhaped with a tapering pale tube, and 5 equal ſegments, ſtained, eſpecially on the inſide, with red and ſome yellow. Stamina 4, 2 of them half as long again as the others. Style thread-ſhaped, aſcending. Stigma capitate, rough. Fruit a dry berry, with 3 cells, each containing 1 or 2 ſeeds. The flower-ſtalks, bracteæ, germen and calyces are clothed with glandular viſcid hairs. The flowers are ſaid in the Flora Suecica to be very fragrant at night, ſmelling like the Meadow-ſweet. Linnæus, in Critica Botanica p. 80, has traced a pretty fanciful analogy between his own early fate and this "little northern plant, long overlooked, depreſſed, abject, flowering early," and, we may now add, more honoured in its name than any other.

G.R. III.



Nov.r 1777 Published by J.s Sowerby London

TRAGOPOGON pratenſis.

Yellow Goat's-beard.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* naked. *Cal.* ſimple, of many leaves. *Down* feathered.

SPEC. CHAR. Calyx about equal to the corolla. Leaves undivided, carinated, long-pointed; broad and a little undulated at the baſe. Flower-ſtalk cylindrical.

SYN. Tragopogon pratenſe. *Linn. Sp. Pl.* 1109. *Hudſ.* 335. *With.* 672. *Relh.* 290. *Sibth.* 236.

T. luteum. *Raii Syn.* 171.

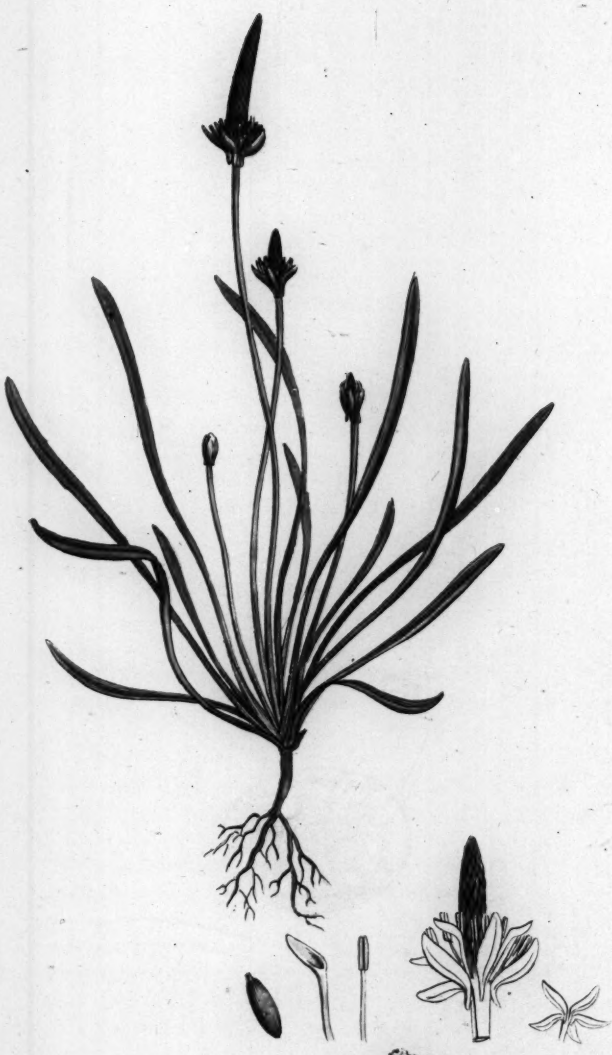
NOT unfrequent in graſſy paſtures and meadows, flowering in June.

Root biennial, tapering, abounding with milk but not acrid. Whole herb ſmooth. Stems ſeveral, branched, 18 inches or 2 feet high, leafy, round, often purpliſh; the branches being elongated into a ſimple naked flower-ſtalk, which is of an equal thickneſs throughout. Leaves alternate, ſeſſile, ſome of them radical, others embracing the ſtem and branches, carinated, all broad and ſomewhat inflated at the baſe, but terminating in a long narrow point; very generally the margin towards the bottom is more or leſs waved or criſped. Flowers ſolitary, terminal, large and handſome, opening at day-break, and cloſing before noon, unleſs (as Mr. Relhan obſerves) the weather be cloudy. Calyx-leaves equal, though ranged alternately, or in two rows. Florets generally as long or longer than the calyx, yellow, with browniſh nerves, eſpecially on the upper ſide, the outermoſt row much longer than the reſt. Antheræ brown or purpliſh. Germen with a tuft of hairs at the ſummit. Seed-down radiated and feathered, ſtanding on a footſtalk. Seed crooked, furrowed and roughiſh.

Such is our plant, which in ſo many reſpects agrees with the character, and even with the ſpecimen, of Linnæus's T. *orientale*, that we are not ſure of their being diſtinct; yet there can be ſtill leſs doubt of ours being his T. *pratenſe*. In fact, the length of the outer florets is very variable.

All botanical writers, except Profeſſor Jacquin, make *Tragopogon* of the neuter gender; but we ſee no reaſon why long uſe ſhould perpetuate ſo manifeſt an error, as its derivation, as well as the beſt authorities, juſtifies its reſtoration to the maſculine.

G.R. III.
BRITISH MUSEUM



Published by J. Sowerby

MYOSURUS minimus.

Mouſe-tail.

PENTANDRIA Polygynia.

GEN. CHAR. *Cal.* of 5 leaves, each with a ſpur at the baſe. *Petals* 5, with a tubular claw. *Seeds* numerous.

SPEC. CHAR. . . . .

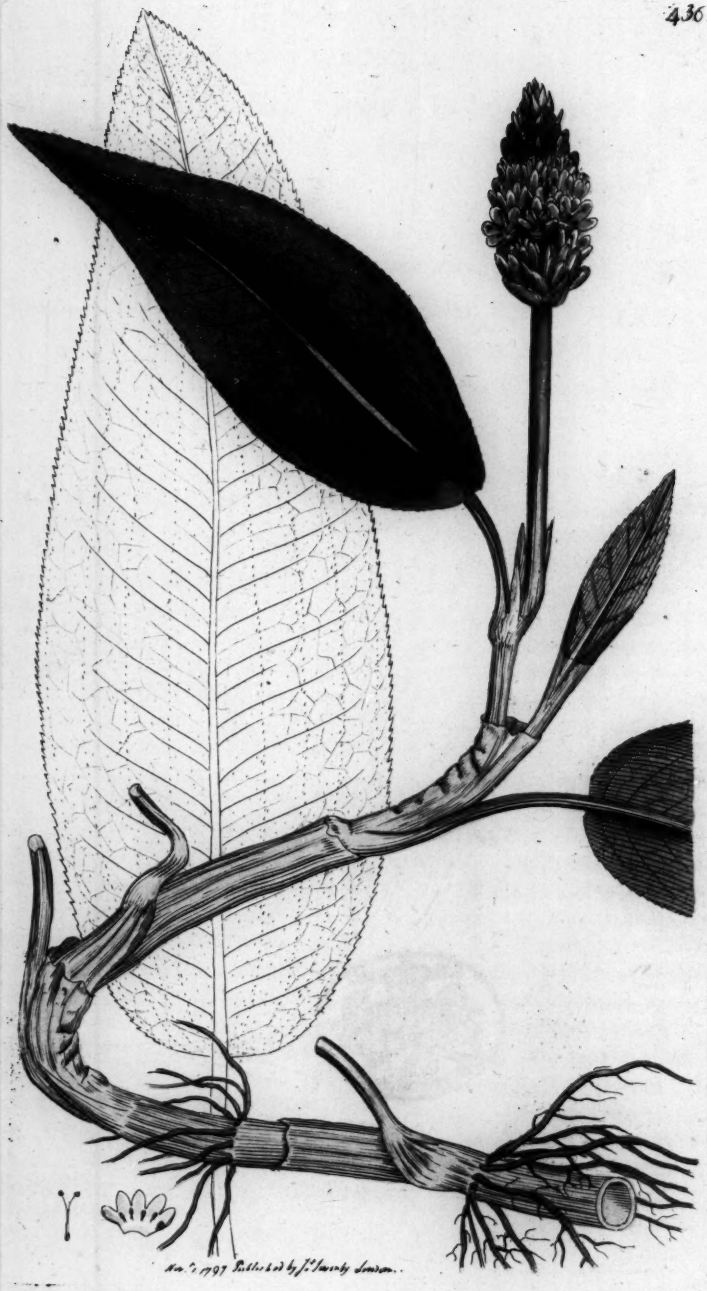
SYN. Myoſurus minimus. *Linn. Sp. Pl.* 407. *Hudſ.* 136. *With.* 326. *Relh.* 132. *Sibth.* 107. *Curt. Lond. faſc.* 4. *t.* 26.

Myoſuros. *Raii Syn.* 251.

A NATIVE of gravelly corn-fields, not unfrequent about London. It has alſo been obſerved in ſeveral parts of Norfolk, always flowering in the early part of ſummer; after which it ſoon ſheds its ſeeds, and withers away.

Root annual, fibrous, very ſmall. Herb ſmooth, varying extremely in ſize according to the luxuriance of the ſoil. Stem none. Leaves numerous, nearly upright, a little fleſhy, of a linear ſomewhat ſpatulate form, entire, pale green. Stalks ſeveral, upright, longer than the leaves, ſimple, round, a little thicker upwards, each bearing a ſmall, erect, pale yellowiſh flower. Calyx of 5 elliptical concave leaves, ſpurred at the baſe below their inſertion. Petals 5, ſcarcely longer than the calyx, pale, ſlender, conſiſting of a honey-bearing tubular claw, and a ſhort ſpreading lanceolate border. Stamina generally about 5, but in luxuriant plants much more numerous, the length of the corolla, with vertical linear antheræ. Piſtillum conical, longer than the ſtamina, compoſed of a conical receptacle, covered with a great number (even 2 or3 hundred) of ovate, ſtriated germens, each furniſhed with its own minute ſeſſile ſtigma. This plant affords a remarkable and rare inſtance of a very great diſproportion of males to females in the ſame flower, and yet the latter are generally all prolific. The ſeeds are juſtly deſcribed by Linnæus as naked; for the part which Juſſieu denominates a capſule, is ſurely nothing more than a thickened inſeparable coat, as in *Ranunculus*, to which the *Myoſurus* very nearly belongs; there being the cloſeſt affinity between the nectariferous pore in the claw of the petals in that genus, and the tubular claw of *Myoſurus*.

G.R III.
BRITISH MUSEUM



Jan.ʸ 1797 Published by J.ᵒ Sowerby London.

POLYGONUM amphibium.

Amphibious Perſicaria.

OCTANDRIA Trigynia.

GEN. CHAR. *Cal.* coloured, in 5 ſegments, permanent. *Styles* 2 or 3. *Seed* ſolitary, angular, inveſted with the calyx.

SPEC. CHAR. Styles two, united half way up. Stamina five. Spike ovate.

SYN. Polygonum amphibium. *Linn. Sp. Pl.* 517. *Hudſ.* 169. *With.* 379. *Relh.* 158. *Sibth.* 128. *Curt. Lond. faſc.* 4. *t.* 28.

Perſicaria Salicis folio perennis. *Raii Syn.* 145.

MOST commonly found growing in ponds and ditches, where its long creeping perennial roots run deep into the mud, throwing out whorls of fibres here and there, while the leaves float upon the ſurface, and the beautiful ſpikes of flowers are (in July or Auguſt) elevated above it. In this caſe the leaves are ſmooth, and of a bright green. Frequently however, as Ray obſerves, the roots are thrown out with the mud in clearing ditches; and if by that, or any other accident, the plant gets out of the water, the ſtems grow more erect, the leaves become narrower and hairy, and the flowers are more ſparingly produced.

The ſtem is round, branching in the lower part, leafy, inveſted with tubular membranous ſtipulæ, which ſheath it above as well as below the inſertion of the foot-ſtalks. Leaves alternate, lanceolate or oblong, heart-ſhaped at the baſe, acute, ciliated with ſhort briſtly hairs. Spikes ovate, erect, on a reddiſh, generally ſmooth, flower-ſtalk, at firſt terminal, but at length the ſtem is protruded beyond it; ſometimes two ſtalks grow together. Bracteæ ovate, membranous, pointed. Flowers on ſhort foot-ſtalks, roſe-coloured, compoſed of only a coloured calyx, for ſo we beg leave with Juſſieu and Curtis to call it, on account of the analogy with *Rumex*, though Linnæus terms it a calyx-like corolla. This part is funnel-ſhaped, with 5 obtuſe ſegments. Stamina but five, varying in length. Germen ſuperior, red, bearing 2 ſtyles united and red a good way above their baſe, white in the upper part, tipped with red globular ſtigmas. Seed compreſſed, brown, poliſhed; according to Mr. Curtis, a favourite food of water fowl.

G.R. III.
BRITISH MUSEUM

Nov.r 1797 Published by P. Sowerby London

SERAPIAS rubra.

Purple Helleborine.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* ovate, gibbous, with an ovate lip.

SPEC. CHAR. Root creeping. Leaves lanceolate. Bracteæ longer than the germen. Flowers erect. Lip acute, marked with undulating lines.

SYN. Serapias rubra. *Linn. Syſt. Veg. ed.* 14. 816. *With.* 42. *Fl. Dan. t.* 345.

S. longifolia β. *Hudſ.* 394.

S. grandiflora δ. *With. ed.* 2. 1001.

Helleborine montana anguſtifolia purpuraſcens. *Raii Syn.* 384.

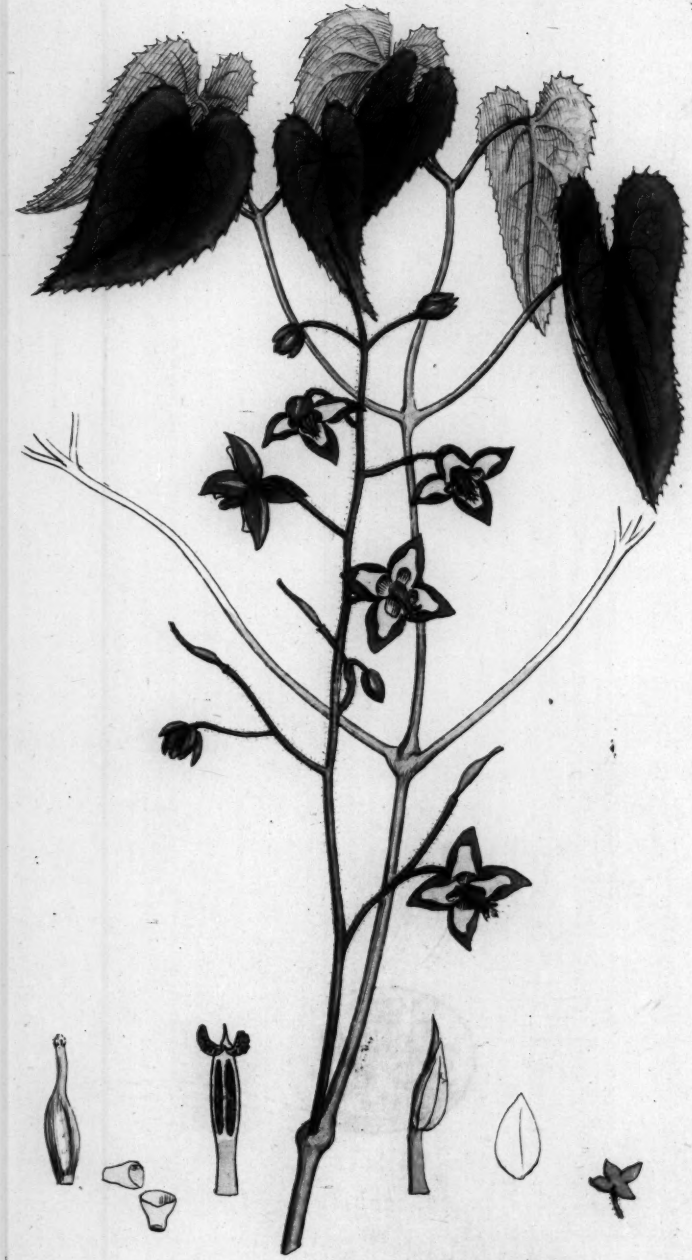
Epipactis N. 1299. *Hall. Hiſt. v.* 2. 156. *t.* 42.

DILLENIUS, in his edition of Ray's Synopſis, inſerts this as a native of Ireland, on the authority of Plukenet; Hudſon ſays it grows in the north part of Yorkſhire; but Dr. Withering, who in his third edition has firſt rightly explained the ſpecies of *Serapias*, mentions the *rubra* as a very doubtful native. We are enabled to decide the queſtion by means of this wild ſpecimen, gathered laſt June on a ſteep ſtony bank, ſloping to the ſouth, on Hampton Common, Glouceſterſhire, by Mrs. Smith of Barnham Houſe in that neighbourhood, who obſerved about a dozen of the plants within a ſmall ſpace. In the following month we received ſpecimens gathered in another part of the ſame county by the Rev. Mr. Baker.

This is unqueſtionably a moſt diſtinct ſpecies, though confounded by Hudſon with *grandiflora* (ſee our *t.* 271.) and *enſifolia*; nor were theſe plants ever well underſtood by Linnæus.

The root creeps horizontally, producing many long ſimple fibres. Stem perfectly erect, a foot high, leafy, downy; compreſſed, and with fewer leaves in the upper part. Leaves a little ſpreading in various directions, lanceolate, pointed, ribbed. Spike of from three to ſix upright purple flowers. Bracteæ lanceolate; the lowermoſt ſometimes as long as its correſponding flower, the reſt but a little longer than the germen, ſometimes rather ſhorter. Germen ſlender, downy. Petals all directed upwards, ovate, very much pointed. Nectary with a ſhort blunt projection behind, its lip about equal to the petals in length, white tipped with purple, lobed on each ſide at the baſe, marked with yellow elevated undulating lines, and terminating in a ſharp point; by which marks it is certainly diſtinguiſhed, as Haller obſerves, from S. *grandiflora*.

G.R. III.
BRITISH MUSEUM



May 1, 1797. Published by J. Sowerby, London.

EPIMEDIUM alpinum.
Barren-wort.

TETRANDRIA Monogynia.

GEN. CHAR. *Petals* 4. *Nectaries* 4 pouches, lying on the petals. *Calyx* oppoſite to the petals, caducous. *Pod* of one cell, with many ſeeds.

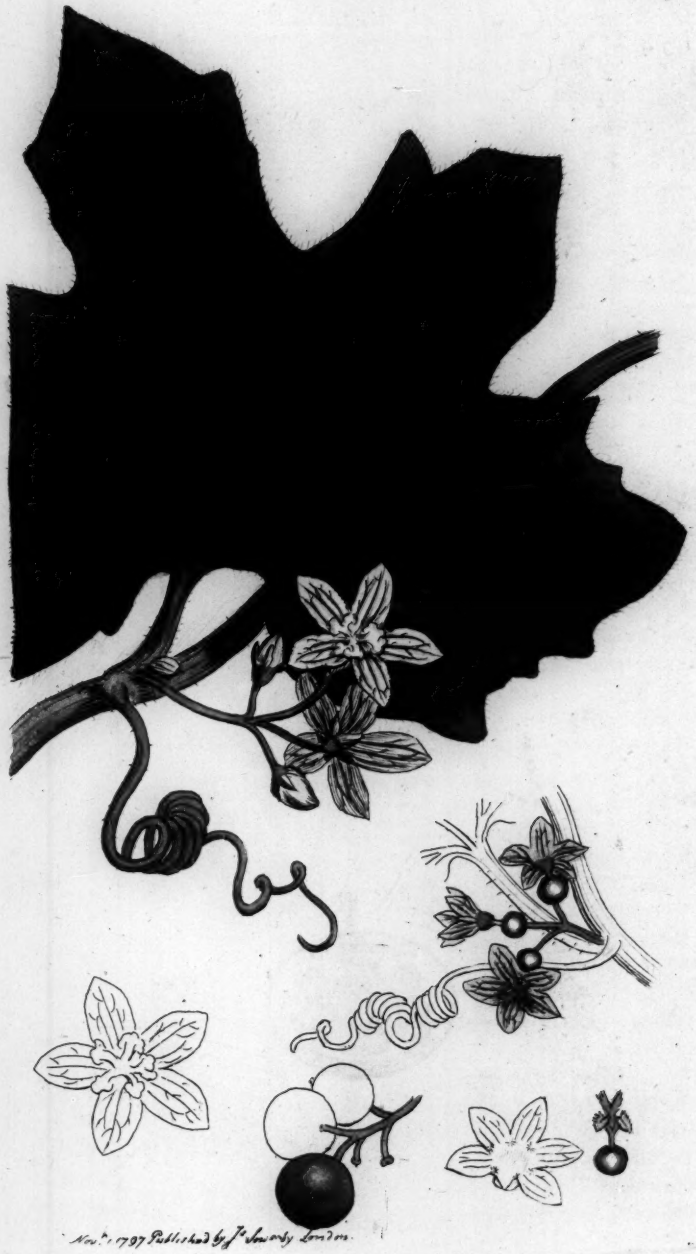
SPEC. CHAR. . . . . .

SYN. Epimedium alpinum. *Linn. Sp. Pl.* 171. *With.* 199. *Ait. Hort. Kew. vol.* 1. 157.

THE firſt information we had of this as a Britiſh production was from Thomas Giſborne, Eſq. of Yoxall Lodge, Staffordſhire, who about ſix or ſeven years ago received a living plant collected by Mr. Thomas Hutton ſome time before upon Carrock Fell, Cumberland. Our ſpecimen came from the garden of John Walker, Eſq. who laſt year received from Mr. Hutton a portion of the original root. Dr. Withering has lately introduced the *Epimedium* into his work on the authority of Dr. Richardſon, who is ſaid in Blackſtone's *Specimen Botanicum* to have found it in Bingley Woods, Yorkſhire, and of Mr. Robſon, who lately obtained a ſpecimen from Skiddaw. We think therefore there can be no farther doubt upon the ſubject. It is probable that this plant, curious and beautiful as it is, may have generally eſcaped notice, from flowering early in the ſpring, after which its leaves ſoon wither away, before the wild buſhy places it inhabits are commonly viſited by botaniſts.

Root perennial, ſlender, creeping. Stems upright, ſcarcely a foot high, round, ſmooth, ſimple, bearing one alternately branched upright panicle of dark red drooping flowers, and one large twice or thrice compound leaf, divided in a threefold order, and compoſed of large, thin and delicate heart-ſhaped, pointed, finely ciliated leaflets, glaucous beneath, pendent, and, from their almoſt capillary foot-ſtalks, trembling to every breath of air. The terminal leaflets, and one of the lateral ones, are ternate; the other lateral one moſtly ſimple: nor are the two ſides of the general leaf ever compounded exactly in the ſame manner. Perhaps what is called the ſtem ought to be reckoned only the foot-ſtalk of the leaf, which, as in *Turnera*, bears the flower-ſtalk. The peduncles are rough with glandular hairs. Calyx of four concave greeniſh leaves, falling off as the flower expands. Petals dark red, ovate, oppoſite to the calyx. Nectary of four oblong blunt yellowiſh pouches, opening inwards, full of honey, and lying on the petals. Stamina awl-ſhaped; antheræ united with them longitudinally, and burſting on each ſide by a cover which ſeparates from the baſe as in *Leontice* and *Laurus*. Germen ovate, becoming an oblong pod of one cell, two valves, and ſeveral ſeeds.

G.R. III
BRITISH MUSEUM



Nov.r 1797 Published by J.s Sowerby London

BRYONIA dioica.

Red-berried Bryony.

MONŒCIA Syngeneſia.

GEN. CHAR. Male, *Cal.* 5-toothed. *Cor.* 5-cleft. *Filaments* 3. *Antheræ* 5.
Female, *Cal.* 5-toothed. *Cor.* 5-cleft. *Style* 3-cleft. *Berry* inferior, roundiſh, with many ſeeds.

SPEC. CHAR. Leaves palmate; rough on both ſides with callous points. Male and female flowers on ſeparate plants.

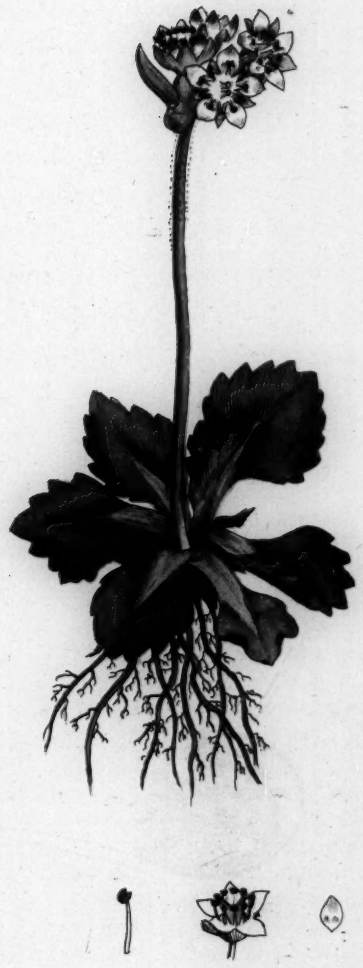
SYN. Bryonia dioica. *With.* 67. *Sibth.* 81. *Jacq. Auſtr. v.* 2. *t.* 199.
B. alba. *Hudſ.* 437. *Relh.* 375. *Raii Syn.* 261.
B. ruderalis. *Saliſb. Prodr.* 158.

COMMON every where in hedges and thickets, flowering from May to September.

Root perennial, growing to a very large ſize, white, acrid, and purgative (ſee Withering). Stems annual, climbing by means of ſimple tendrils, angular, rough, not much branched, very long. Leaves alternate, on rough foot-ſtalks, palmate, with five angular lobes, veiny, rough on both ſides with ſmall callous points. Stipulæ none. Flowers in axillary bunches, the males larger, on longer ſtalks, and on a ſeparate root from the female, contrary to the other ſpecies of this genus, which therefore ſtands in the claſs *Monœcia* of the Linnæan ſyſtem. Calyx bell-ſhaped, with five ſharp teeth. Corolla longer, in five elliptical obtuſe ſegments, whitiſh, veined with green. Stamina conſiſting of three ſhort filaments hairy in their lower part, two of which bear each of them two antheræ, and the third a ſolitary one, though Mr. Sowerby has obſerved all of them to bear double antheræ occaſionally. The antheræ are all more or leſs firmly connected at their baſe, and bear the pollen on their outer edge. The female flowers are a little elevated on a ſhort ſtalk above the ſmooth globular germen, and have no rudiments of ſtamina. The ſtyle is divided into three branches, with cloven downy ſtigmas. Berry red, of one cell, full of fœtid juice, enveloping ſix elliptical ſpotted ſeeds.

Moſt writers have confounded this with the *Bryonia alba* of Linnæus, called *alba* from the white root, though the berries of that are black. Dillenius, on the authority of Plukenet, mentions it as not rare about Cambridge; but Profeſſor Martyn aſſures us no one elſe has found it. The *alba* is the Swediſh plant, ſee *Flora Suecica*.

G.R. III.
BRITISH MUSEUM



Nov.r 1797 Published by J.t Sowerby London.

SAXIFRAGA nivalis.

Cluſtered Alpine Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capſ.* with two beaks, one-celled. *Seeds* numerous.

SPEC. CHAR. Leaves obovate, ſerrated. Stem ſimple, naked. Flowers cluſtered.

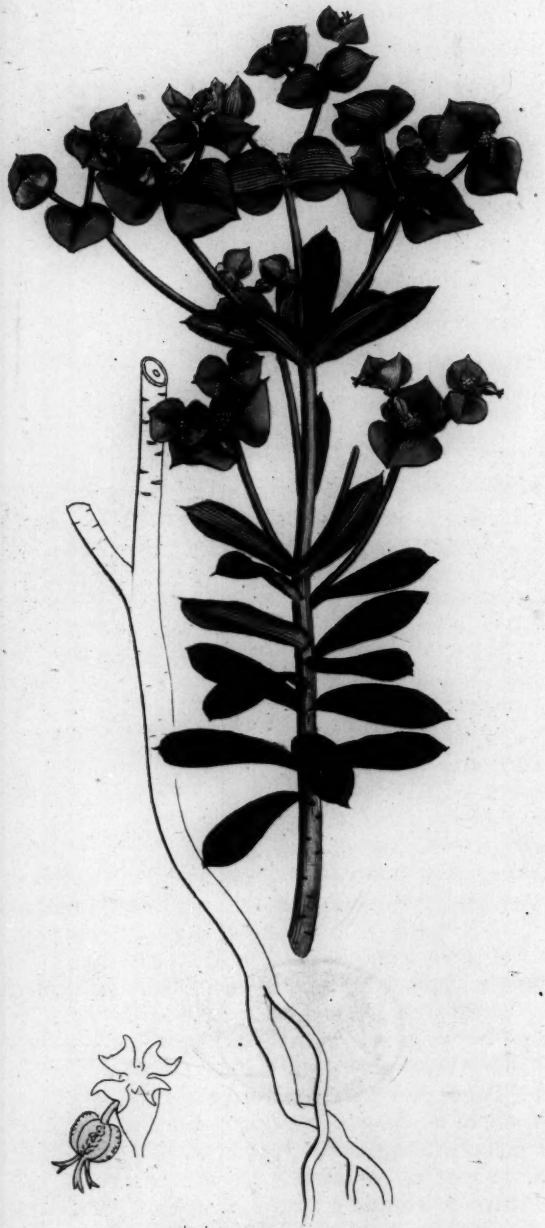
SYN. Saxifraga nivalis. *Linn. Sp. Pl.* 573. *Hudſ.* 180. *With.* 403. *Lightf.* 221, *tab.* 12.

S. foliis oblongo-rotundis dentatis, floribus compactis. *Raii Syn.* 354, *tab.* 16. *f.* 1.

THIS, the moſt alpine of our Britiſh ſaxifrages, is found about the ſummits of the higheſt mountains only, in Scotland and Wales, where it flowers throughout the ſhort ſummer of thoſe exalted regions, but moſt naturally and plentifully in Auguſt. Dr. Smith found it ſparingly, in 1782, under the ſhade of a rock to the weſt, among ſome large diſperſed maſſes of white quartz on the top of Ben Lomond. We have been favoured with wild freſh ſpecimens from Wales laſt ſummer (along with many other rare plants) by I. W. Griffith, Eſq. F. L. S. of Garn near Denbigh, whoſe remarks on its extreme variableneſs, as to ſize, ſhape of the leaves, luxuriance of its flowering-ſtem, and number of flowers, may be ſeen in Dr. Withering's new edition.

Root perennial, black, ſending down long fibres into the black moiſt ground. Leaves radical, ſpreading, fleſhy, obovate, ſtrongly ſerrated, lengthened out at the baſe, dark green above, purpliſh beneath (eſpecially near the edges and tips), hairy about the margin. Stalk for the moſt part ſolitary, erect, three or four inches high, ſimple, leafleſs, round, clothed in the upper part with fine hairs tipped with viſcid moiſture, terminating in a cluſter of ſeveral flowers on ſhort (ſometimes branched) flower-ſtalks, the lowermoſt often accompanied by a ſimple entire bractea. Teeth of the calyx fleſhy, purple. Petals ovate, obtuſe, white ſpotted with pale green, frequently purpliſh. Piſtilla white or purpliſh. It has moſt affinity with *S. ſtellaris*, ſee *t.* 167, but may eaſily be known by the characters given above. Ray's figure is better than Lightfoot's; but neither is very good. Flora Danica, *t.* 28, repreſents a luxuriant branched ſpecimen.

G.R. III.



Jan.y 1798 Published as the Act directs by J.r Sowerby London

EUPHORBIA Portlandica.

Portland Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Petals* 4 or 5, ſtanding on the calyx. *Cal.* of one leaf, inflated. *Capſ.* 3-lobed.

SPEC. CHAR. Umbel of 5 rays, forked. Partial involucra nearly heart-ſhaped, concave. Leaves linear-lanceolate, pointed, ſmooth, ſpreading.

SYN. Euphorbia Portlandica. *Linn. Sp. Pl.* 656. *Hudſ.* 208. *With.* 448.

Tithymalus maritimus minor Portlandicus. *Raii Syn.* 313, *t.* 24, *f.* 6.

SPECIFIC names taken from the local ſituations of plants are generally exceptionable, but in the preſent caſe leſs ſo than uſual; the Portland Spurge being found wild chiefly on or about the peninſula called Portland-iſland on the Dorſetſhire coaſt. It ſometimes indeed occurs on the ſhores of Devonſhire, and we have a ſpecimen collected by F. Borone in Cornwall. That here delineated was gathered by A. B. Lambert, Eſq. on rocks hanging over the ſea on the ſouth ſide of Portland-iſland, flowering in Auguſt.

Root (we believe) perennial, long, branching, whitiſh. Stem ſcarcely a foot high, round, woody, leafy, purpliſh in autumn, terminating in a 5-rayed umbel, with 2 or 3 ſtraggling flower-ſtalks beneath it, which, like thoſe that compoſe the umbel, are about twice forked. Leaves ſcattered, linear-lanceolate, inclining to be obovate or ſpatulate, obtuſe with a ſharp point, ſpreading, glaucous, as is every other part of the herb. General involucrum of 5 leaves like thoſe of the ſtem; partial ones in pairs, rhomboid, ſcarcely heart-ſhaped, a little concave, pointed, entire. Calyx pale. Petals 4, greeniſh yellow, horned. Fruit ſlightly tuberculated at the projecting parts. Linnæus, in cultivating this plant, obſerved the firſt and ſecond flowers to be only males, and to have blunt petals without horns. We have found none ſuch.

We beg leave to correct an unaccountable error into which we have fallen in the generic character of all the *Euphorbiæ* hitherto figured in this work, *t.* 195, 256 and 333; inſtead of the petals being 3 or 4, we ought to have ſaid 4 or 5. Thoſe who are moſt uſed to compoſe works of ſcience, will moſt readily pardon ſimilar blunders.

G.R.
III.

January 1, 1797. Published by S. Sowerby, London.

EUPHORBIA Characias.

Red Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Petals* 4 or 5, ſtanding on the calyx. *Cal.* of one leaf, inflated. *Capſ.* 3-lobed.

SPEC. CHAR. Flower-ſtalks ſcattered and umbellate, cloven. Partial involucra perfoliate with a notch between, and tipped with a ſmall point. Leaves lanceolate, entire. Stem ſhrubby. Fruit hairy.

SYN. Euphorbia Characias. *Linn. Sp. Pl.* 662. *Hudſ.* 211. *With.* 451.

Tithymalus characias Monſpelienſium. *Raii. Syn.* 312.

OBSERVED in the foreſt of Needwood, Staffordſhire, in great plenty, undoubtedly wild, by Mr. Whately, ſurgeon in the Old Jewry, London. Ray mentions its growing in that county, but ſuſpected it to have been planted there. The root from which our ſpecimen was taken, was found wild two years ſince.

This is a large handſome ſpecies; but not pleaſant in a garden, on account of the diſagreeable ſmell of its flowers. The root is perennial. Stem ſhrubby, 3 or 4 feet high, round, clothed with ſoft down; as are alſo the leaves, which are numerous, thick-ſet about the upper part of the branches, lanceolate, bluntiſh, dark green above, pale beneath, ſpreading. Flower-ſtalks, many of them axillary, the reſt forming a terminal many-rayed umbel, as in E. *amygdaloides*, *t.* 256, with which E. *Characias* agrees much in habit, but is more ſhrubby, the leaves more thickly clothed with ſhorter downineſs, the petals dark-red and leſs pointed, the antheræ of two roundiſh (not wedge-ſhaped) lobes, and the germen and fruit very hairy inſtead of being quite ſmooth. The partial involucra in both are perfoliate, with a notch between them on each ſide half way to the baſe, to which we preſume Linnæus alluded when he defined thoſe of the *Characias* "emarginate;" for in their termination they are rather more pointed than thoſe of the *amygdaloides*, and by no means notched either in his own or any other ſpecimens. If his definition is not to be reconciled on this ground, it is erroneous, and at any rate it belongs equally to both theſe ſpecies. The above-mentioned differences diſtinguiſh them beſt.

G.R. III.
BRITISH MUSEUM

Jan.1 1793 Published by J.t Sowerby London

ERYSIMUM Barbarea.

Yellow Rocket.

TETRADYNAMIA Siliquoſa.

GEN. CHAR. *Pod* columnar, exactly ſquare. *Cal.* cloſed. *Stigma* blunt.

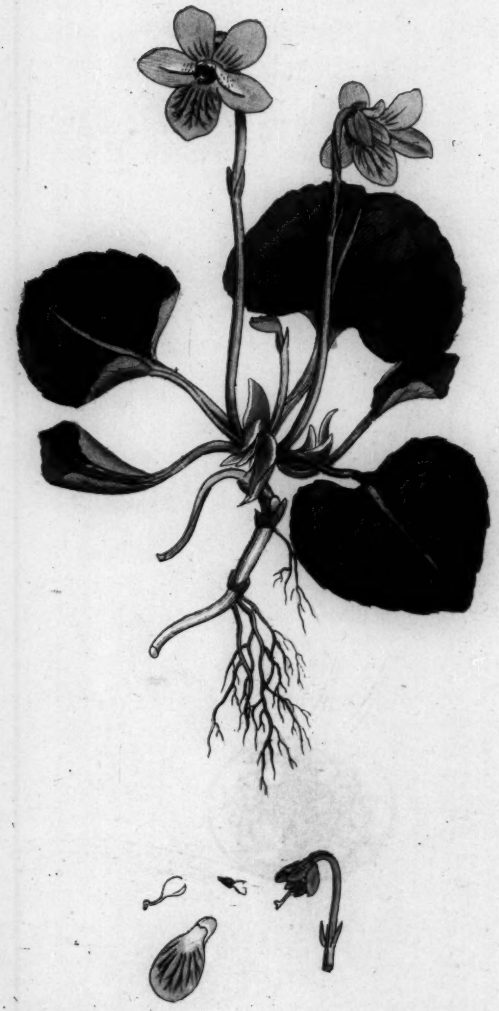
SPEC. CHAR. Lower leaves lyrate, the terminal lobe roundiſh; upper ones obovate, dentate.

SYN. Eryſimum Barbarea. *Linn. Sp. Pl.* 922. *Hudſ.* 286. *With.* 584. *Relh.* 250. *Sibth.* 202.
Eruca lutea, ſeu Barbarea. *Raii Syn.* 297.

FREQUENT every where about hedges, waſte ground, and the banks of rivers, flowering from May to the end of ſummer.

Root perennial, tapering. Stem 2 or 3 feet high, ſimple or branched, erect, ſtrong, angular and furrowed, ſmooth. Radical and lower ſtem-leaves lyrate; the upper ones gradually becoming leſs divided, and at length obovate; all are alternate, of a deep ſhining green, ſtrongly veined, ſmooth, dentate, and are extended on each ſide at the baſe ſo as to claſp the ſtem. Flowers in terminal corymbi, ſoon lengthened out into ſpikes, numerous, yellow, the calyx alſo being partly coloured. When double, they continue long in beauty, and are introduced into gardens. There are two glands on the outſide of the longer ſtamina, and two under the ſhorter ones. The Pod is quadrangular, though leſs ſharply ſo than in ſome other ſpecies.

The taſte of this herb, though ever ſo young, is bitteriſh, ſlimy, and very nauſeous: yet Linnæus, in Flo. Suec. ſays it is uſed as a ſpring ſallad. What his variety β may be, (the *Barbarea foliis minoribus & frequentius ſinuatis* of Dillenius in Ray's Synopſis,) we are not certain, neither does Dr. Withering appear to have ſeen it. Linnæus however, in a manuſcript note, ſays it is inſipid and void of acrimony, and that the leaves are not lyrate, but the radical ones entire, and cordato-ovate. This variety therefore can ſcarcely be the American Winter Sallad, or Winter Creſs of the gardens, which taſtes pleaſantly and warm like water-creſſes, and which we ſuſpect to have been generally confounded with *Eryſimum Barbarea*. Tradition ſays it was introduced a few years ago from America. We have found it apparently wild in a lane near Leeds, and have been inclined to add it to the Britiſh Flora. It is a true *Eryſimum*, having a quadrangular pod, calyx-leaves cohering, much broader than thoſe of *Barbarea*, from which it alſo eſſentially differs in having all its upper leaves pinnatifid, with oblong, almoſt linear, obtuſe and entire ſegments, not to mention the wide difference in flavour.



Jan.ʸ 1790 Published by J. Sowerby London

VIOLA paluſtris.

Marſh Violet.

PENTANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* 5, irregular, the lowermoſt ſpurred behind. *Capſule* ſuperior, of one cell, with 3 valves.

SPEC. CHAR. Stem none. Leaves kidney-ſhaped.

SYN. Viola paluſtris. *Linn. Sp. Pl.* 1324. *Hudſ.* 379. *With.* 261. *Lightf.* 506. *Curt. Lond. faſc.* 3. *t.* 58.
V. paluſtris rotundifolia glabra. *Raii Syn.* 364.

ON the moiſt parts of ſandy or turfy heaths, more frequent in Scotland, and the north of England, than in the ſouth; yet it is found plentifully (according to Mr. Curtis) near Croydon, and our ſpecimen was gathered in Norfolk by Mr. Dawſon Turner. This violet is not mentioned in the Floras of Relhan or Sibthorp, though Ray ſays it grows near Oxford.

Root perennial, creeping, ſomewhat fleſhy, with many fibres. Stem none. Leaves on ſmooth ſemi-cylindrical foot-ſtalks, ſpreading, kidney-ſhaped, more or leſs pointed, crenate, veiny, ſmooth, of a delicate texture, often purple beneath. Stipulæ radical, ovate, acute, ſmooth, ſcarcely perceptibly ſerrated. Flower-ſtalks longer than the leaves, erect, ſquare, ſmooth, with a pair of lanceolate erect bracteæ about the middle, not always below the middle as mentioned in the Flora Londinenſis. Flowers appearing in May, ſolitary, drooping, inodorous, paler and ſmaller than in the more common ſpecies. Calyx-leaves rather elliptical, ſlightly membranous at the edge. The 2 upper petals are ſcarcely ſtreaked at all; the 2 lateral ones have one dark longitudinal line, and are bearded with white near the baſe; the lowermoſt is beautifully marked with numerous branched ſtreaks, and terminates behind in a ſhort blunt honey-bearing ſpur. The antheræ are bordered with an orange-coloured membrane; but, though collected together, they are ſcarcely united, any more than in other ſpecies of *Viola*, ſo that whether the Linnæan Syſtem remain in its original form or not, this genus ought no longer to continue in the claſs *Syngeneſia*. Stigma acute, with a ſingular protuberance above it.

Such is our plant, which agrees preciſely with the Linnæan ſpecimen. The *Viola rubra ſtriata Eboracenſis* Raii Syn. 365, ſhould ſeem by coloured copies of the Flora Danica to be t. 83 of that work; and the leaves are there repreſented leſs pointed, or more truly kidney-ſhaped, than ours, but we have no doubt of its being merely a variety.

G.R.
III.
BRITISH MUSEUM

1797 Published by J. [illegible]

VIOLA lactea.

Cream-coloured Violet.

PENTANDRIA Monogynia.

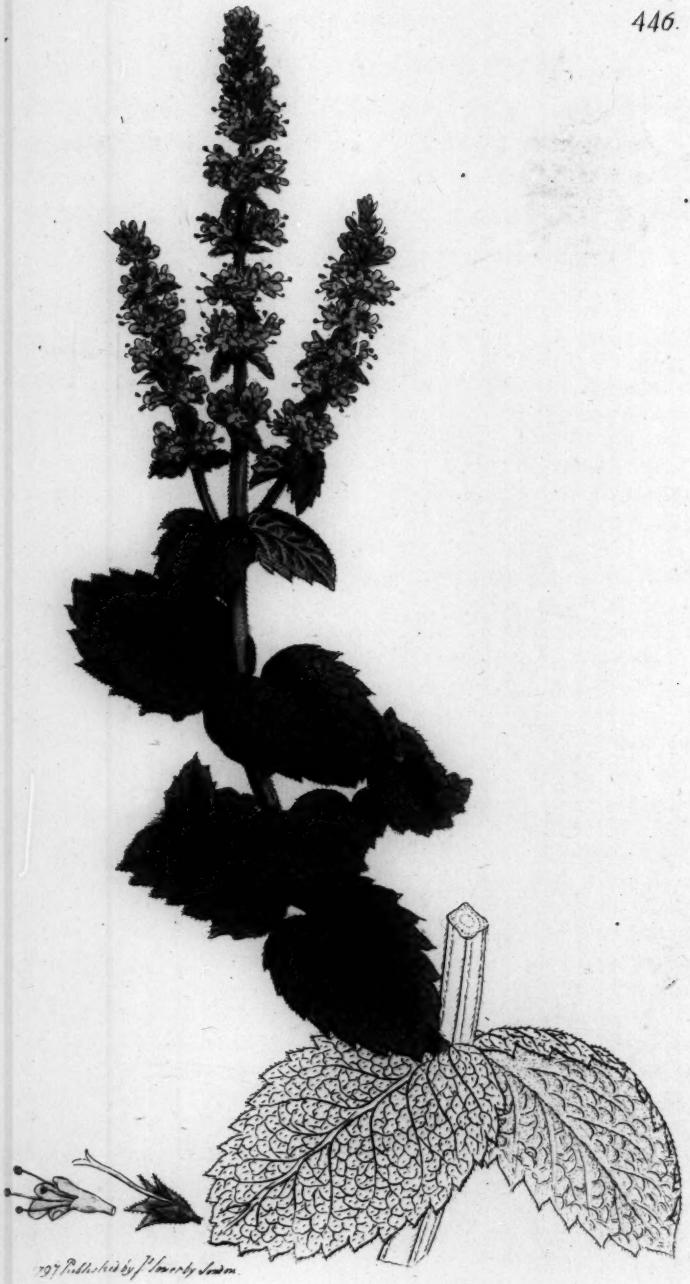
GEN. CHAR. Cal. 5-leaved. *Petals* 5, irregular, the lowermoſt ſpurred behind. *Capſule* ſuperior, of one cell, with 3 valves.

SPEC. CHAR. Stem aſcending. Leaves ovato-lanceolate.

SYN. Viola canina, var. 3. *With.* 262.

WE are extremely doubtful of the permanency of this ſpecies, and now publiſh it as diſtinct from V. *canina*, rather in conformity to the opinion of others, and in hopes of having the point cleared up by inveſtigation and culture, than as wiſhing to decide upon it ourſelves. The root from which our ſpecimen was taken, was gathered on the wolds near Tunbridge-wells, by Mr. T. F. Forſter, jun. and flowered lately in his garden. This gentleman communicated it to Mr. Sowerby, as a new ſpecies of *Viola*; and his opinion is of the greateſt weight, no one hitherto having ſtudied this whole genus, both foreign and domeſtic, half ſo accurately and laborioufly.

The root is perennial. Herb in all its parts much ſmaller than the *canina*, quite ſmooth. Stems procumbent at the baſe, and throwing out radicles, then erect, round, branched, leafy. Leaves alternate, on footſtalks about their own length, generally erect, lanceolate or inclining to ovate, decurrent (not cordate) at their baſe, veiny, crenate, rather obtuſe. Stipulæ deeply toothed, and often pinnatifid. Flower-ſtalks axillary, ſolitary, erect, riſing as high as the branches, each bearing above its middle a pair of purpliſh lanceolate bracteæ, moſtly toothed near their baſe, and at the top one nodding flower. Calyx-leaves linear-lanceolate. Petals cream-coloured, obtuſe, much narrower than in V. *canina*, ſtreaked, eſpecially the lower one, with purple lines diſpoſed as thoſe in V. *canina*, and the two ſide petals (as in that) are hairy above the baſe. Spur ſhort and blunt. Antheræ terminating in a broad dilated membrane, not cohering to each other. What diſtinguiſhes our V. *lactea* from *canina* is principally the narrow and lanceolate (not heart-like) form of the leaves, which if permanent is ſufficient. The ſtipulæ alſo appear to be more deeply cut; and the bracteæ, which are entire and almoſt ſetaceous in *canina*, are lanceolate, and moſtly toothed. It flowers in May, and, if we are right in the quotation of Dr. Withering, has been found by Mr. Stackhouſe in Cornwall.



797 Published by J. Sowerby, London.

MENTHA rotundifolia.
Round-leaved Mint.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cor.* nearly regular, four-cleft; its broadeſt ſegment notched. *Stamina* erect, diſtant.

SPEC. CHAR. Spikes oblong. Leaves ſeſſile, roundiſh, rugged, ſhaggy, ſharply crenate. Bracteæ lanceolate. Stamina longer than the corolla.

SYN. Mentha rotundifolia. *Linn. Sp. Pl.* 805. *Hudſ.* 251. *With.* 522.

Menthaſtrum folio rugoſo rotundiore ſpontaneum, flore ſpicato, odore gravi. *Raii Syn.* 234.

WITH cautious ſteps we enter upon the Engliſh mints; which have hitherto been very imperfectly underſtood, and we ſhall therefore be more ſparing than uſual in our quotations of Britiſh authors. We have long been in expectation that the ſubject would have been taken up profeſſedly by ſome able practical obſerver. The world ſtill looks to the ingenious Mr. Sole of Bath, and it is hoped his obſervations on this difficult genus will not be long withheld. A complete ſet of ſpecimens, named by himſelf, and compared by us with the Linnæan herbarium, have been of great uſe; as well as others collected by the pupils of Ray and Dillenius, communicated by Sir Joſeph Banks. We ſhall therefore, by theſe authorities, and our own practical and repeated inveſtigations, try to eſtabliſh each ſpecies ſtep by ſtep, as every one that is ſo eſtabliſhed leſſens the difficulty with the remainder.

The *Mentha* now before us is very near, if not the ſame, to what Linnæus intended for *criſpa* in the firſt edition of Species Plantarum, but is not that of the ſecond edition and all other authors, which has never yet been found in Britain. Ours is alſo *M. Spicata* γ of that firſt edition.

With us it is rather rare; growing in waſte ground, generally where there is moiſture; and flowering in Auguſt and September. This ſpecimen was gathered by the Rev. Mr. Forby, on the edge of an old moat at Shingham, Norfolk. We have the ſame collected in Eſſex, by J. Walford, Eſq. In gardens it is often found variegated.

The root is perennial and creeping, as uſual in this genus. Stems 2 or 3 feet high, erect, ſquare, hairy or ſhaggy, the hairs pointing more or leſs downwards. Leaves roundiſh, ſomewhat heart-ſhaped, rugged, ſtrongly and ſharply crenate, or rather ſerrated, the teeth and points of the ſmall upper ones being often very taper. The under ſide is ſhaggy, not hoary, and all the veins are fringed as it were with cloſe hairs. Spikes ſeveral, terminal, erect, ſharpiſh, not very denſely whorled; the bracteæ lanceolate, hairy, ſharp, and projecting. Flowers reddiſh. Calyx-teeth broad at the baſe. Stamina always much longer than the corolla; which circumſtance, though occaſionally variable, as the Rev. Mr. Bryant and Mr. Pitchford long ago obſerved, is not totally to be overlooked in mints. In general, indeed, when the plant increaſes much by root, the ſtamina are ſhort and abortive, as in the orange lily.

G.R. III.

Jan.ʸ 1790 Published by J.ᵗ Sowerby, London.

MENTHA hirſuta.

Hairy Water-Mint.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cor.* nearly regular, four-cleft; its broadeſt ſegment notched. *Stamina* erect, diſtant.

SPEC. CHAR. Flowers in denſe compound terminal heads. Leaves on ſhort foot-ſtalks, ovate, ſerrated, hairy. Stamina longer than the corolla.

SYN. Mentha hirſuta. *Linn. Mant.* 81. *With.* 522. *Hudſ. ed.* 1. 223.

M. aquatica β et γ *Hudſ.* 252.

Siſymbrium hirſutum. *Raii Syn.* 233.

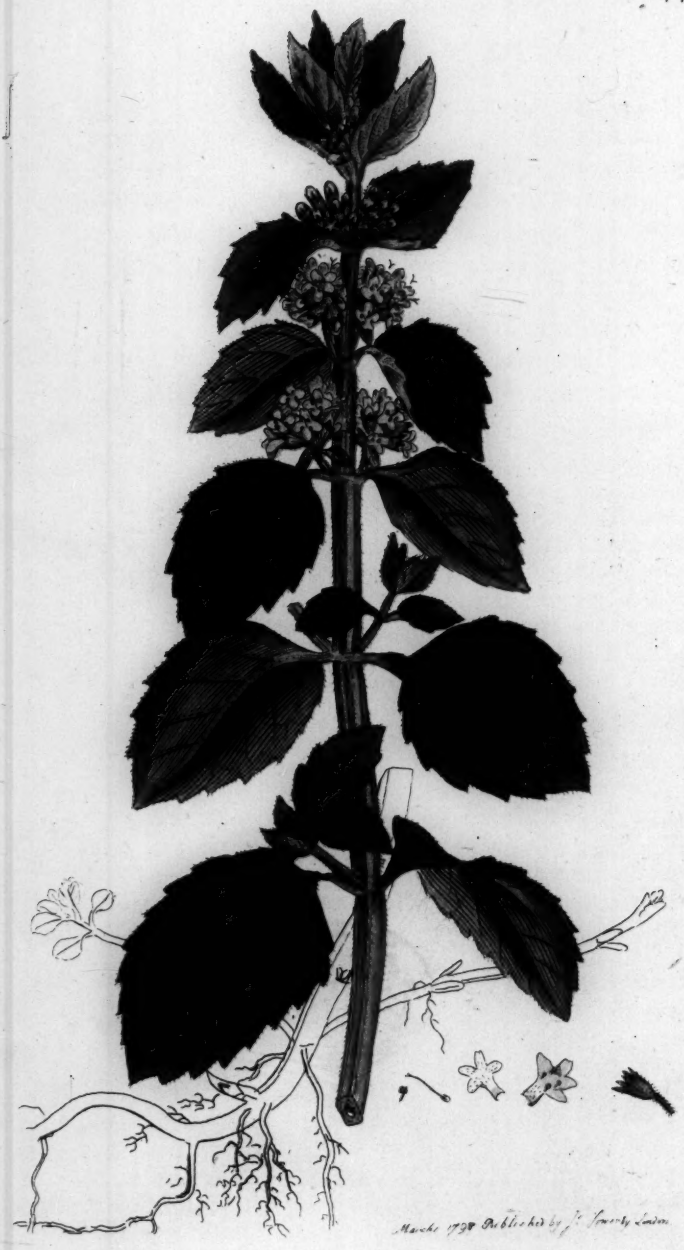
VERY common in clear ditches, rivulets, and other watery places, growing ſometimes among large graſſes and reeds, ſometimes by itſelf, flowering in Auguſt.

Roots long, branched, creeping under water, perennial. Stem ſquare, branched, very generally purpliſh, rough with deflexed hairs, which are ſcattered all over it, not ranged along the edges; there is however a denſe tuft of ſimilar hairs, between the inſertions of the foot-ſtalks, which are erect, and the hairs on the foot-ſtalks and leaves alſo point upwards or forwards. The degree of hairineſs throughout the whole plant varies extremely. Branches oppoſite. Leaves on ſhortiſh foot-ſtalks, ſometimes almoſt ſeſſile, ſpreading, ovate, frequently approaching to elliptical, pointed, ſerrated from a little above the baſe to near the tip, paler and moſt hairy beneath, eſpecially about the nerves. Flowers lilac-coloured, numerous, in a large round terminal head, which, when accurately obſerved, is found to be divided into three parts, and is accompanied (at a greater or leſs diſtance below it) by a pair, rarely more, of ſmaller axillary heads. Flower-ſtalks and calyx very hairy. Stamina generally longer than the corolla.

When out of the water it grows much ſmaller, more purple, with a ſimple head of flowers, which ſeems to be Hudſon's variety γ, though not very well drawn by Dillenius in Ray's Synopſis, *tab.* 10. *f.* 1.

Hudſon has conſidered this as the ſame ſpecies (poſſibly juſtly) with the *Mentha aquatica ſeu Siſymbrium* of John Bauhin, and Ray's Synopſis p. 233, which we believe to be the M. *piperita* of Linnæus, and which is deſcribed in Sir Joſ. Banks's manuſcripts by the name of M. *Siſymbrium*. The M. *aquatica* of Linnæus ſeems different from both the above, but we have not yet ſufficiently inveſtigated that point.

G.R. III.



March 1790 Published by J. Sowerby London

MENTHA ſativa.

Marſh Whorled Mint.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cor.* nearly regular, four-cleft; its broadeſt ſegment notched. *Stamina* erect, diſtant.

SPEC. CHAR. Flowers whorled. Stem erect. Leaves on winged foot-ſtalks, ovate, ſerrated, pubeſcent. Flower-ſtalks and calyx hairy.

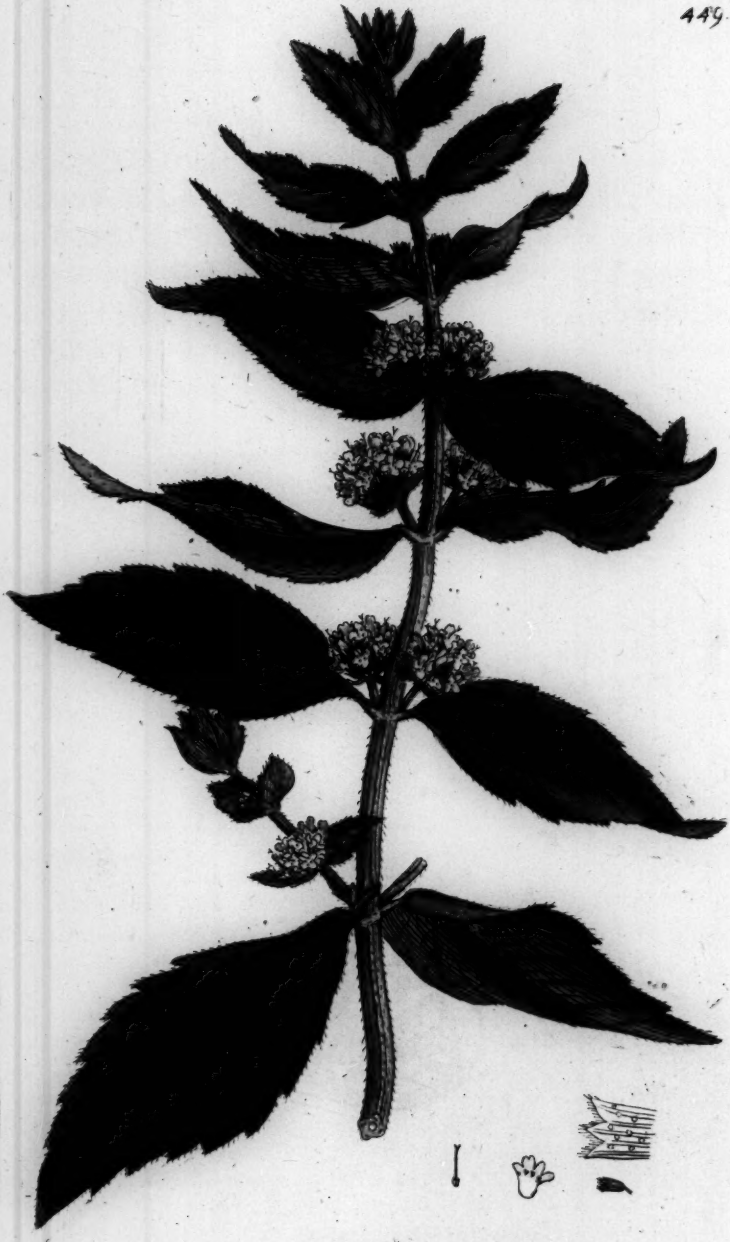
SYN. Mentha ſativa. *Linn. Sp. Pl.* 805. *Hudſ.* 253.
M. verticillata. *Raii Syn.* 232. *Linn. Syſt. Nat. ed.* 10. 1099. *Hudſ. ed.* 1. 222.

GATHERED by Mr. Edward Forſter jun. on the banks of the river Lea in Low Leyton marſh, not far from Lea bridge, the very ſpot evidently intended by Dillenius in Ray's Synopſis as "Hackney river near the Ferry-houſe," which houſe ſtill exiſts, though there has been no ferry ſince Lea bridge was built. Mr. Forſter therefore preſumes it to be the M. *verticillata* of the Synopſis. We have certainly determined it by the herbarium of Linnæus to be his *ſativa*, though the ſynonyms in *Sp. Pl.* may poſſibly both be wrong. It is found flowering in Auguſt and September.

Root creeping, and throwing out long creeping horizontal ſhoots, as well as one erect ſquare hairy ſtem, furniſhed all the way up to the flowering part with oppoſite ſhortiſh axillary leafy branches. Leaves on winged foot-ſtalks (the baſe of the leaf running down them) ovate, rather pointed, ſharply ſerrated from near the baſe, veiny, clothed on both ſides with ſhort ſcattered hairs, and paler beneath. Flowers in axillary cluſters from many of the uppermoſt leaves, forming whorls, and each cluſter is more or leſs pedunculated. General and partial flower-ſtalks thickly covered (eſpecially the ſummit of the latter juſt under the calyx) with white hairs pointing downwards like thoſe on the ſtem, but the calyx itſelf is clothed all over with hairs which point upwards, juſt as in M. *hirſuta*; by which it may be eaſily known from every variety of M. *gentilis*, whoſe flower-ſtalks are always ſmooth, and the calyx hairy about the top only. The ſtamina in our ſpecimens are ſhorter than the corolla; in thoſe of Linnæus, longer.

However ſtrange it may ſeem, we have of late had reaſon to ſuſpect that this plant is a mere verticillate variety of M. *hirſuta*.

G.R. III.
BRITISH MUSEUM



Jan.ʸ 1. 1790 Published by J.ᵗ Sowerby London

MENTHA gentilis.

Red Mint.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. *Cor.* nearly regular, four-cleft; its broadeſt ſegment notched. *Stamina* erect, diſtant.

SPEC. CHAR. Flowers whorled. Leaves ovato-lanceolate, acute, nearly ſeſſile, ſcarcely hairy. Flower-ſtalks perfectly ſmooth. Teeth of the calyx hairy.

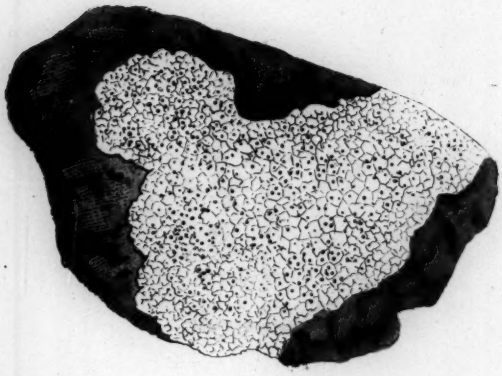
SYN. Mentha gentilis. *Linn. Sp. Pl.* 805. *With.* 524.
M. rubra. *Hudſ.* 252.
M. fuſca ſive vulgaris. *Raii Syn.* 232.

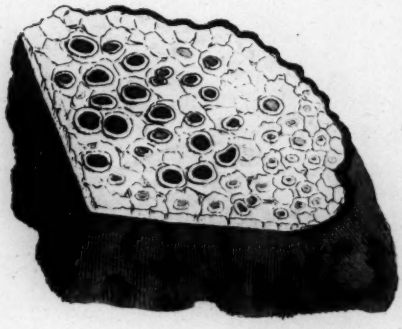
FOUND by Mr. B. M. Forſter near Walthamſtow, and by Mr. Crowe and Dr. Smith in September 1797, on a ſmall common at Saham, Norfolk.

Root creeping. Stems ſeveral, erect, growing in tufts, about 18 inches high, with harſh ſomewhat hairy angles, more or leſs reddiſh in the upper part, branched, leafy. Leaves moſt crowded towards the upper part, nearly ſeſſile, lanceolate inclining to ovate, acute, ſharply ſerrated, veiny, punctured with ſhining dots, and ſprinkled (eſpecially about the margin, and the nerves on the back) with a few ſhort hairs. Their uſual ſcent is much like that of the M. *viridis*, or garden mackerel mint; but nothing is more variable than the ſmell of mints. We have from Mr. Sole what ſeems a variety of this, with the delightful ſcent of baſil, to which probably C. Bauhin's ſynonym belongs. Bracteæ lanceolate, ciliated. Flower-ſtalks round, red, and always perfectly ſmooth, as is the lower part of the calyx, the upper part only, on or about the teeth, being fringed or clothed with hairs which point upwards. The pellucid globules on the calyx are very conſpicuous. Stamina ſhorter than the corolla; Style much longer; Germen, as Dr. Withering has well remarked, ſtanding on a fleſhy receptacle.

We believe the ſynonyms above quoted are unqueſtionable. There is a mint which agrees with this in the calyx and flower-ſtalk, but grows much taller, with large ovate leaves. This many have taken for the true M. *gentilis*, but Dillenius ſeems to have confounded it with the *ſativa*, by his deſcription of the latter in Ray's Synopſis. We know the plant, and ſhall carefully inveſtigate it; but in the mean time we venture to eſtabliſh this now before us as the *gentilis*.

G.R III.
BRITISH MUSEUM





Jan.ʸ 1790 Published by J.ˢ Sowerby London.

LICHEN punctatus.

Dotted Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.
Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

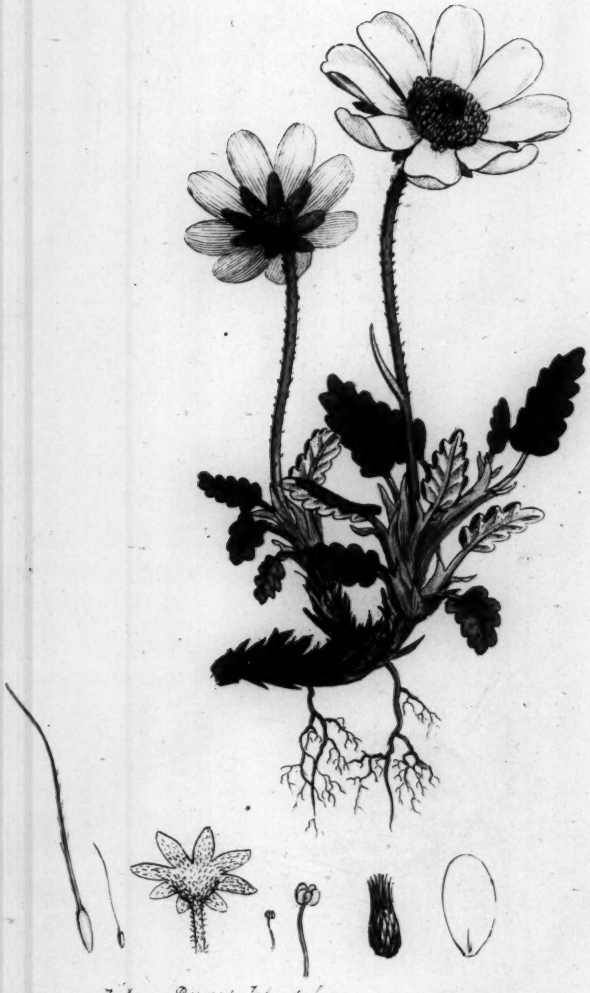
SPEC. CHAR. Cruſtaceous, cracked, greyiſh-white, with a very narrow black edge. Shields minute, very numerous, roundiſh, black, with a white margin incorporated with the cruſt.

SYN. Lichen punctatus. *Dickſ. Crypt. faſc.* 3. 15. *With. v.* 4. 19. *Flo. Dan. t.* 468. *f.* 2.

OBSERVED on a wall near Ludlow, by Dr. Joſeph Babington, in November 1796. Mr. Dickſon firſt found it on rocks in Scotland.

This ſpecies forms a thin hard cruſt of a greyiſh white, with a narrow black margin; ſo that when ſeveral plants grow together, they are diſtinguiſhed by a black line. The whole ſurface is full of little fiſſures, ſeparating it into ſmall angular portions. In the centre of each of theſe portions the fructification begins, being at firſt (according to Dr. Babington's obſervations) a greeniſh ſpeck, ſoon turning grey, then brown-red, and finally black. In this laſt ſtage, the ſhields riſe out of the cruſt and often become convex, having a broad white elevated margin, not viſible in a young ſtate becauſe incorporated with the cruſt.——The progreſs of this little vegetable has not before been noticed. The figure in *Flora Danica* repreſents it well of its natural ſize, but wants a magnified portion to make it intelligible.

G.R
III



Jan.ʸ 1. 1798 Published by J.ᵗ Stone by Lewis.

DRYAS octopetala.

Mountain Avens.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* in 5 to 8 equal ſegments. *Petals* 5 to 8. *Seeds* with long feathery awns.

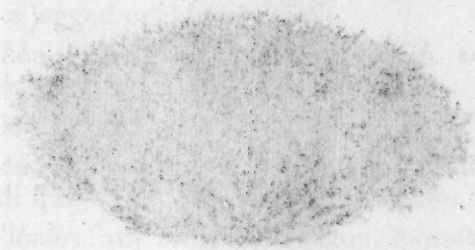
SPEC. CHAR. Petals eight. Leaves ſimple, ſerrated.

SYN. Dryas octopetala. *Linn. Sp. Pl.* 717. *Hudſ.* 226. *With.* 478. *Lightf.* 274. *Fl. Dan. t.* 31. *Tour on the Cont. v.* 3. 137.

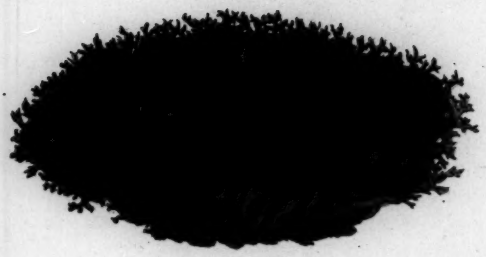
Caryophyllata Alpina, Chamædryos folio. *Raii Syn.* 253.

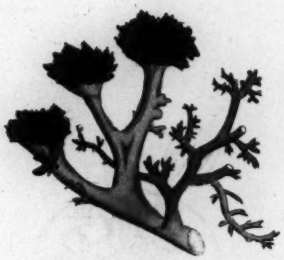
THIS moſt elegant inhabitant of the Alps is found about the tops of ſeveral of the higheſt hills in Britain, and even in the north-weſt part of Yorkſhire (a country rich in wild ſcenery and botanical rarities), from whence the Rev. Mr. Wood, F. L. S. favoured us with this ſpecimen. We have cultivated the *Dryas* with ſucceſs under a north wall on a gravelly ſoil mixed with loam.

It is perennial and ſhrubby, though of a very humble ſize, flowering from the middle of June till the latter part of Auguſt, and the beautiful leaves are ever-green. The woody proſtrate ſtems, tangled together, form a thick matted tuft to the extent of ſeveral feet; they are ſmooth, clothed with the remains of withered leaf-ſtalks. Leaves crowded, on longiſh woolly foot-ſtalks, to whoſe lower part is attached a pair of narrow ſharp ſtipulæ, like thoſe in the neighbouring genera of *Roſa* and *Rubus*. The leaf itſelf is ſimple, from half an inch to an inch long, ovate, blunt, with deep, ſomewhat revolute, ſerratures; dark ſhining green above; very white and cottony, with brownish projecting veins beneath. Stalks ſolitary, ſimple, riſing more than twice as high as the leaves, round, ſingle-flowered, downy, and in the upper part the down is intermixed with reddiſh hooked glandular briſtles, as is alſo the caſe with the outſide of the calyx. Flower large, erect, bearing ſome reſemblance at firſt ſight to the bloſſom of a Carolina ſtrawberry, but more handſome on account of its eight uniform petals, and the ſilvery tuft of ſtyles ſurrounded by numerous yellow antheræ. The ſtyles, after flowering, are lengthened out into feathery awns, each crowning an obovate dry downy ſeed, ſtanding on the diſk of the calyx.



G.R. III.
BRITISH MUSEUM





Jan.ʸ 1790 Published by Mr. Sowerby London.

LICHEN hiſpidus.

Prickly Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.
Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Shrubby, ſolid, much branched, ſmooth, dark brown; branches divaricated, rather compreſſed, terminating in numerous ſpines. Shields with a jagged prickly margin.

SYN. Lichen hiſpidus. *Lightf.* 883. *With. v.* 4. 43. *Sibth.* 335.

L. iſlandicus γ. *Hudſ.* 539.

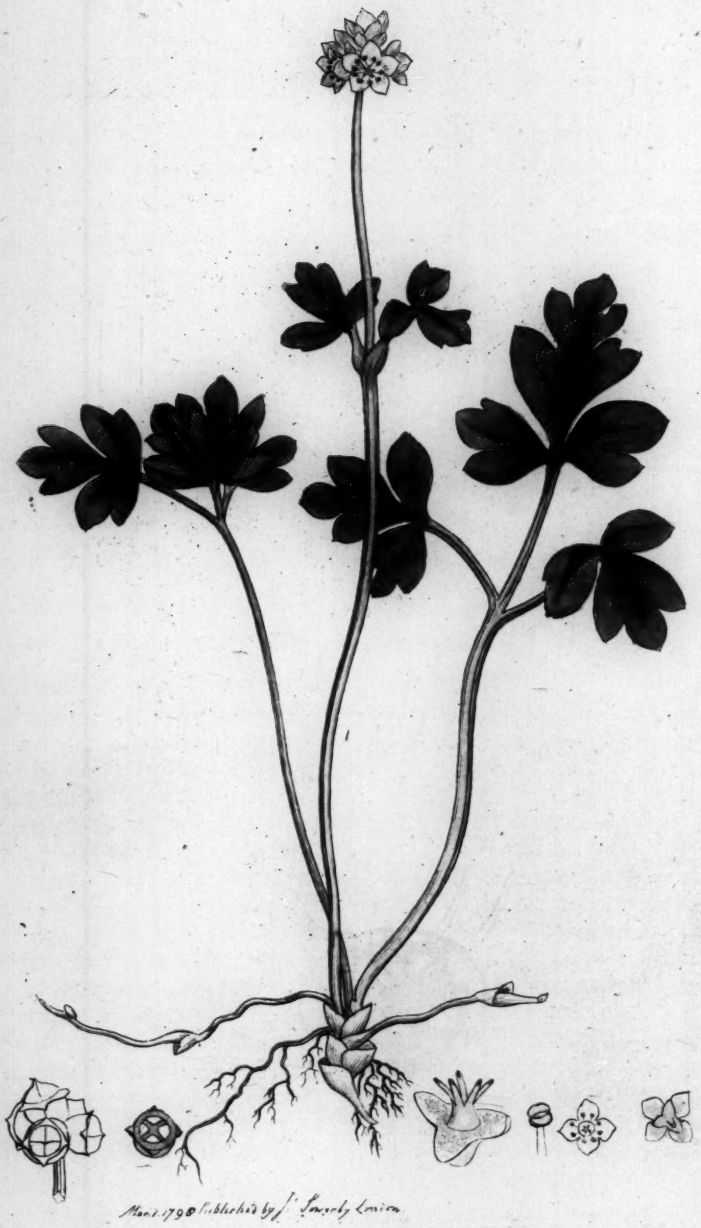
Lichenoides non tubuloſum ramoſiſſimum, fruticuli ſpecie, ruſo-nigreſcens. *Raii Syn.* 66.

Coralloides fruticuli ſpecie fuſcum, ſpinoſum. *Dill. Muſc.* 112. *t.* 17. *f.* 31.

A NATIVE of heaths, chiefly in mountainous places, not very uncommon, but the ſhields are very rarely indeed to be met with. Our ſpecimen was gathered near Beverley, by R. Teeſdale, Eſq. F. L. S.

Mr. Lightfoot has admirably deſcribed this plant in his Flora Scotica, and we think with him it ought not to be confounded with L. *iſlandicus*. However ſimilar they may be in hue and general appearance, they are different in ſtructure and fructification, not to mention ſize, which is variable. L. *hiſpidus* is truly ſhrubby, round, filled with white ſpongy pith, not flat nor leafy. Its numerous branches form obtuſe angles, and are a little compreſſed at their divarications, terminating in many little briſtly ſpines. The ſhields are terminal, horizontal, concave, poliſhed, ſurrounded with an erect margin of little unequal prickles, ſometimes branched and lengthened out. The whole plant is poliſhed and ſmooth, of a brown or chocolate colour, paler towards the root, the ſhields and ſpines darker than the other parts.

G.R. III.
BRITISH MUSEUM



March 1798 Published by J. Sowerby London

ADOXA Moſchatellina.

Tuberous Moſchatell.

OCTANDRIA Tetragynia.

GEN. CHAR. *Cal.* 2 or 3-cleft, partly inferior. *Cor.* 4 or 5-cleft, ſuperior. *Capſ.* of 4 or 5 cells, inveſted with the calyx.

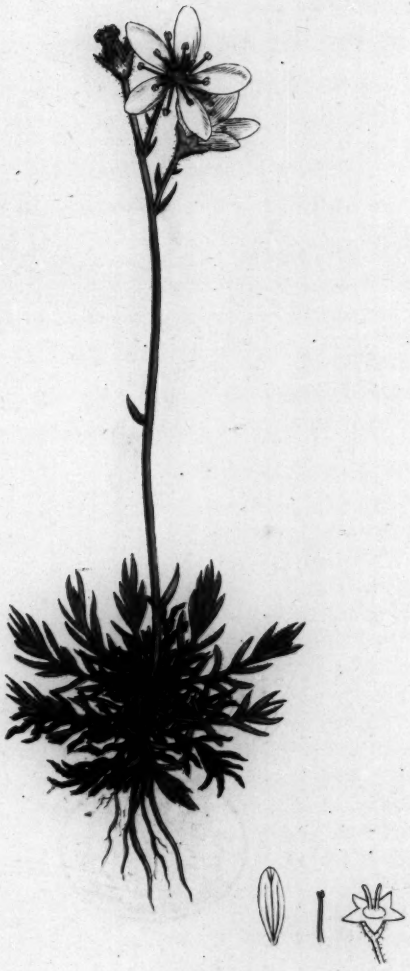
SPEC. CHAR. . . . . .

SYN. Adoxa Moſchatellina. *Linn. Sp. Pl.* 527. *Hudſ.* 172. *With.* 386. *Relh.* 163. *Sibth.* 131. *Curt. Lond. faſc.* 2. *t.* 26. *Dickſ. H. Sicc. faſc.* 5. 7.
Moſchatellina foliis Fumariæ bulboſæ. *Raii Syn.* 267.

NOT unfrequent in groves, thickets, and ſhady lanes, flowering in April or May. The generic name *Adoxa* (inglorious) admirably expreſſes the modeſt appearance of this little humble plant, as it emerges from its wintry bed of withered leaves, and, ſcarcely daring to lift up its head, welcomes the botaniſt on his firſt excurſions in the ſpring. When young, and moiſt with dew, it has a faint muſky ſmell, which gave riſe to its original name.

The root is perennial, formed of fleſhy white imbricated ſcales, from whoſe interſtices the fibres are produced, as well as runners which terminate in freſh roots. Herb of a pale green, ſucculent, ſmooth and pellucid. Stem erect, 3 or 4 inches high, angular, bearing two oppoſite leaves, and a little head of five ſeſſile whitiſh-green flowers, four of them lateral, one terminal and vertical. The leaves are all ternate, wedge-ſhaped and lobed, their ſegments more or leſs elliptical, entire. One or two grow from the root on long foot-ſtalks; thoſe on the ſtem are more ſimple, and on ſhorter ſtalks. The lateral flowers have 10 ſtamina, the corolla in 5 ſegments, and the calyx in 3, ſometimes 4 or 5; but the terminal flower having but 8 ſtamina, a quadrifid corolla, and generally bifid calyx, made Linnæus (according to a principle of his own) refer the genus to the 8th claſs. It is allied to *Chryſoſplenium*, ſee our *t.* 54. The ſtyles are 4 in the terminal flower, 5 (rarely 6) in the others. We have never found the ripe fruit. It is deſcribed as a capſule of 4 cells, inveſted with the fleſhy calyx, ſo as to reſemble a berry. One of the beſt deſcriptions of the *Adoxa* is from Mr. Lyons's manuſcripts, in the *Flora Cantabrigienſis*.

G.R. III.
BRITANNIA METUENDA



Curtis

SAXIFRAGA hypnoides.
Moſſy Saxifrage, or Ladies' Cuſhion.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capſ.* with 2 beaks, 1-celled. *Seeds* numerous.

SPEC. CHAR. Leaves linear, undivided or three-cleft. Shoots procumbent. Stem erect, almoſt naked.

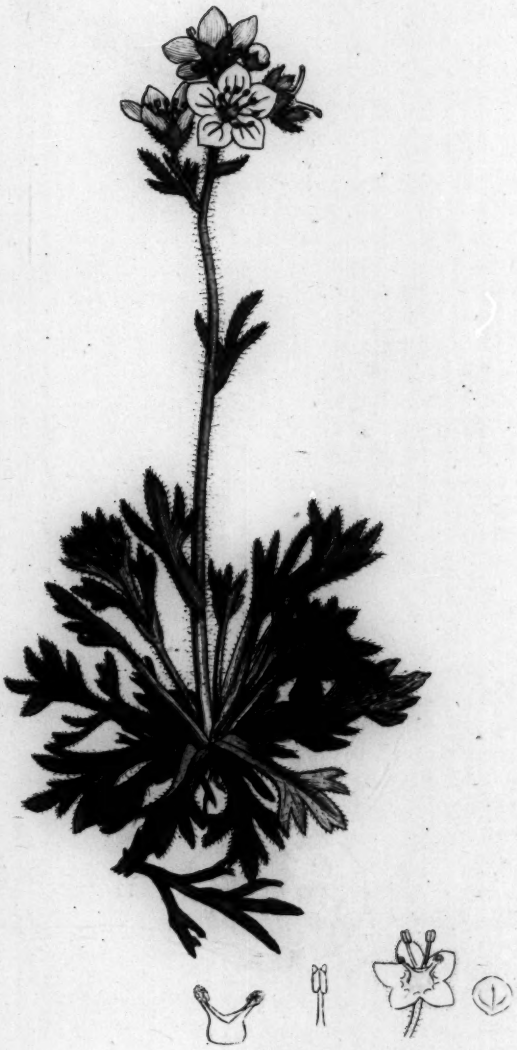
SYN. Saxifraga hypnoides. *Linn. Sp. Pl.* 579. *Hudſ.* 182. *With.* 407. *Lightf.* 224.
S. muſcoſa, trifido folio. *Raii Syn.* 354.

TUFTS of this ſaxifrage often clothe rocks, whoſe inequalities are filled with black turfy earth, on the mountains of Wales, Scotland, and the north of England. We have gathered it on Ben Lomond, and on Arthur's Seat near Edinburgh. The ſpecimen here repreſented was ſent freſh from North Wales, by J. W. Griffith, Eſq. It flowers in May, and often again ſparingly in July and Auguſt.

Roots fibrous, long and ſlender, perennial, throwing out many procumbent leafy ſhoots, which grow matted together, forming thick tufts, and from the common origin of which ariſes a ſolitary erect round ſtem, bearing two or three ſtraggling linear undivided leaves, and terminating in an upright panicle of a few large white flowers. Leaves alternate, linear, acute, pale green, ſmooth, their edges only often hairy with ſoft white woolly filaments; the leaves on the ſhoots ſimple and undivided; thoſe at the bottom of the ſtem all deeply three-cleft, but never (we believe) more compound. Bracteæ ſolitary at each ſubdiviſion of the panicle, lanceolate, and (like its branches) clothed with viſcid ſhort hairs. Calyx alſo viſcid, its ſegments acute. Petals lanceolate, approaching to an elliptical form, acute, entire, yelloviſh at the baſe, ribbed with three green lines, which are all united for ſome diſtance above their origin, and the central one moſtly branched near the top. Stamina ſubulate, five of them rather the ſhorteſt. Styles ſtill ſhorter, nearly erect; Stigmas blunt. This ſpecies grows well in gardens in a ſhady ſituation. By a careful attention to the above characters it may be known from all other *Saxifragæ*. The S. *ajugifolia* is very like it, but has all the leaves 3 or 5-cleft, as well as more numerous, though much ſmaller and yellower, flowers, with blunt petals, whoſe mid-rib is not branched at the top. We ſhould not wonder if this ſhould prove to have been hitherto overlooked by Britiſh botaniſts, as we find by Mr. Davall has been the caſe in Switzerland.

The ſtudent of natural genera may be amuſed with tracing the affinity, and yet diſtinction, between this genus, the *Adoxa*, and their connecting link *Chryſoſplenium*.

G.R. III.
BRITISH MUSEUM



March 1. 1798 Published by J. Sowerby London.

SAXIFRAGA palmata.
Palmate Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capſ.* with 2 beaks, 1-celled. *Seeds* numerous.

SPEC. CHAR. Leaves hairy, palmate: the lower ones in five diviſions; upper in three. Shoots aſcending. Stem erect, leafy, with a denſe panicle of few flowers. Petals roundiſh.

SYN. Saxifraga petræa. *With.* 890.
S. cæſpitoſa. *Fl. Dan. t.* 71.

GATHERED wild on the rocks of Cwm Idwell, North Wales, by Mr. Griffith in the end of May laſt. The ſame gentleman alſo communicated ſpecimens to Dr. Withering, who has inſerted this plant at the end of his 3d volume by the name of S. *petræa* of Linnæus and Gouan; a miſtake ſcarcely to be avoided, conſidering the confuſion which envelops the S. *petræa*, and which we could never have removed without the original ſpecimens of Linnæus, Gouan, and Seguier now before us. From them it appears that the true *petræa*, figured by Pona, and ſent by Seguier to Linnæus, who firſt rightly deſcribed it in the 10th edition of Syſtema Naturæ, and then in *Sp. Pl.* ed. 2, is widely different, both from our plant and the variety β of S. *tridactylites* in *Flor. Suec.* It is no leſs different from Gouan's *petræa*, notwithſtanding what he ſays about comparing it with Seguier's ſpecimens at Niſmes; for his is actually S. *adſcendens* of Linnæus. We have not room here to illuſtrate this matter as it deſerves. We cannot refer our *palmata* to any ſpecies deſcribed in Haller, Allioni, Scopoli or Villars, though it comes in ſome points near the *exarata* of the latter. We have little doubt in quoting the *Flora Danica*, from the figure only; for, as ufual, there is not much to be learned from the letter-preſs of that work. This figure has no reſemblance to S. *cæſpitoſa* of Linnæus.

S. *palmata* has a perennial root, and grows in tufts, compoſed of numerous radical leaves, from whoſe centre ariſes a ſimple erect flowering-ſtem, ſurrounded at the baſe with ſeveral nearly upright, ſhortiſh, leafy ſhoots or branches. All the leaves are palmate, lengthened out at their baſe, clothed with long white woolly ſcattered hairs; the radical ones, as well as one or two on the lower part of the ſtem, are in 5 (rarely 7) ſegments; thoſe on the ſtem and ſide ſhoots in 3. All the ſegments are inclined to be elliptical, not linear. Panicle erect, terminal, viſcid, denſe, compoſed of 5 to 7 or 8 greeniſh-white flowers. Bracteæ 3-cleft, or undivided. Segments of the calyx ovate, pointed, hairy and viſcid. Petals roundiſh, a little pointed, with 3 ſimple nerves united at their baſe. Styles club-ſhaped.—The ſpecific character in Dr Withering, as well as the deſcription from Linnæus, belong to the true S. *petræa*.

G.R. III
BRITISH MUSEUM

Jan.ʸ. 1798 Published by J.ᵗ Sowerby London.

VACCINIUM Myrtillus.

Bilberry or Bleaberry.

OCTANDRIA Monogynia.

GEN. CHAR. *Cor.* of 1 petal. *Filaments* ariſing from the receptacle. *Berry* inferior, with 4 cells and many ſeeds.

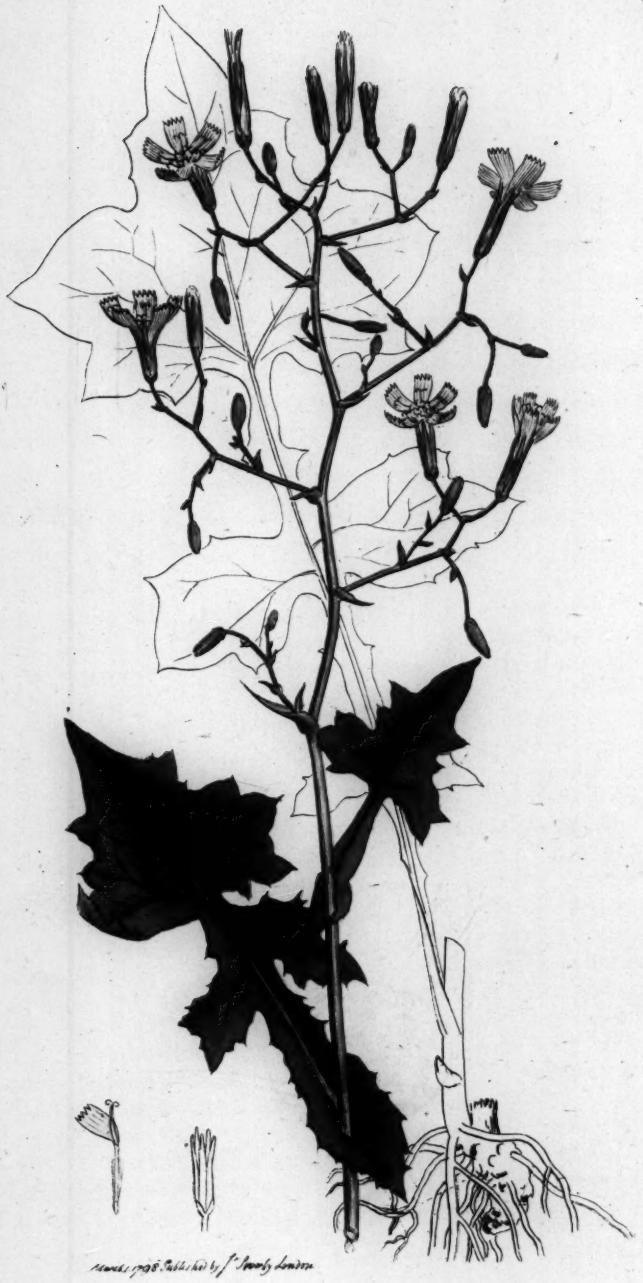
SPEC. CHAR. Flower-ſtalks ſingle-flowered. Leaves deciduous, ſerrated, ovate. Stem angular.

SYN. Vaccinium Myrtillus. *Linn. Sp. Pl.* 498. *Hudſ.* 163. *With.* 370. *Sibth.* 123.
Vitis Idæa anguloſa. *Raii Syn.* 457.

GROWS exceeding copiouſly on heaths and ſtony moors in the mountainous parts of Great Britain. Porland heath, the higheſt ſpot in Norfolk, is we believe the only place it inhabits in that county. About May the young freſh-green leaves, and wax-like red flowers, make an elegant appearance. Towards autumn the leaves grow darker and more firm, and the ripe dark-blue berries are gathered in the north for tarts, and in Devonſhire are eaten with the clotted cream prepared in the manner of that country.

Root perennial, woody. Stem ſhrubby, erect, forming ſmall tufted buſhes, branched, ſmooth, ſharply angular, eſpecially the young green branches. Leaves alternate, on ſhort foot-ſtalks, ovate, ſerrated, ſmooth, veiny. Flowers drooping, on ſhort round ſimple ſtalks, inodorous, the calyx and corolla each with 5 teeth, and the ſtamina alſo generally 10; the numbers 4 or 5 in the two former and 8 or 10 in the latter, being indifferent in this natural order as to the determination of genera or ſpecies. The antheræ are cloven, diſcharging their pollen by a pore in each point, and are beſides accompanied by two briſtles or horns, as in many *Ericæ*. Style and ſtigma ſimple. Berry roundiſh, with a dimple at the top, of 5 cells before it ripens, but when arrived at maturity the numerous ſeeds are imbedded in one continued ſoft acid pulp.

G.R.
BRITISH MUSEUM



Sowerby 1798. Published by J. Sowerby London

PRENANTHES muralis.

Ivy-leaved Lettuce.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* naked. *Calyx* double. *Down* ſimple, nearly ſeſſile. *Florets* in a ſingle row.

SPEC. CHAR. Florets five. Leaves runcinate.

SYN. Prenanthes muralis. *Linn. Sp. Pl.* 1121. *Hudſ.* 338. *With.* 678. *Relh.* 293. *Sibth.* 238. *Curt. Lond. faſc.* 5. *t.* 58.

Lactuca ſylveſtris murorum flore luteo. *Raii Syn.* 162.

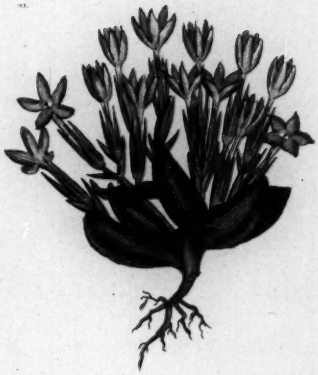
AUTHORS generally mention this as rather a rare plant. Its proper ſtation is in woods on a chalky ſoil, but it alſo occurs on the tops of walls, growing in the mortar, eſpecially on the north ſide or under the ſhade of trees. The Rev. Mr. Hemſted gathered this ſpecimen on Chippenham Park wall, Cambridgeſhire, in July laſt. It grows in Biſhopgate-ſtreet, Norwich.

Root perennial, of ſeveral long fibres. Whole herb tender and brittle, ſmooth, milky when broken. Stem a foot high, erect, ſimple, round, purpliſh, leafy; zigzag and panicled at the top. Leaves runcinate, that is, pinnatifid with ſharp lobes pointing backwards, toothed, veiny, darkiſh green; often purpliſh beneath; the radical ones on foot-ſtalks; the reſt alternate, embracing the ſtem. Panicle much branched, divaricated. Bracteæ ſmall, ovate, acute. Calyx ſlender, purpliſh. Florets 5 only, in a ſimple row, by which this is at once diſtinguiſhed from every other native ſyngeneſious plant. Seed obovate, ſtriated, black.

It varies with entire leaves on the ſtem, as remarked by Dr. Withering.

The leaves much reſemble thoſe of ſome varieties of the Sow-thiſtle, with which alſo the plant agrees in ſenſible qualities. We know not of its being applied to any uſe.

G R III
BRITISH MUSEUM



March 1. 1790. Published by J. Sowerby London.

CHIRONIA pulchella.

Dwarf branched Centaury.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* ſalver-ſhaped. *Stamina* inſerted into the tube. *Antheræ* becoming ſpiral. *Style* declining. *Seed-veſſel* of two inflexed valves.

SPEC. CHAR. Stem herbaceous, much branched all the way up. Leaves ovate. Calyx-teeth awl-ſhaped, above half as long as the tube. Flowers on ſtalks.

SYN. Chironia pulchella. *Swartz in Stockholm Tranſ. for* 1783, *p.* 85. *t.* 3. *f.* 8, 9. *With.* 255.
Gentiana Centaurium *β Linn. Sp. Pl.* 333. *With.* 255.
Centaurium minus, paluſtre, ramoſiſſimum, flore purpureo. *Vaill. Pariſ.* 32. *t.* 6. *f.* 1.

SENT from Gorleſtone Norfolk, near the ſea, by D. Turner Eſq. where it was firſt found by Robert Stone Eſq. a gentleman to whom the botany of Norfolk and Suffolk is much indebted. Dr. Withering received it from Cornwall. It appears to be annual, flowering in September.

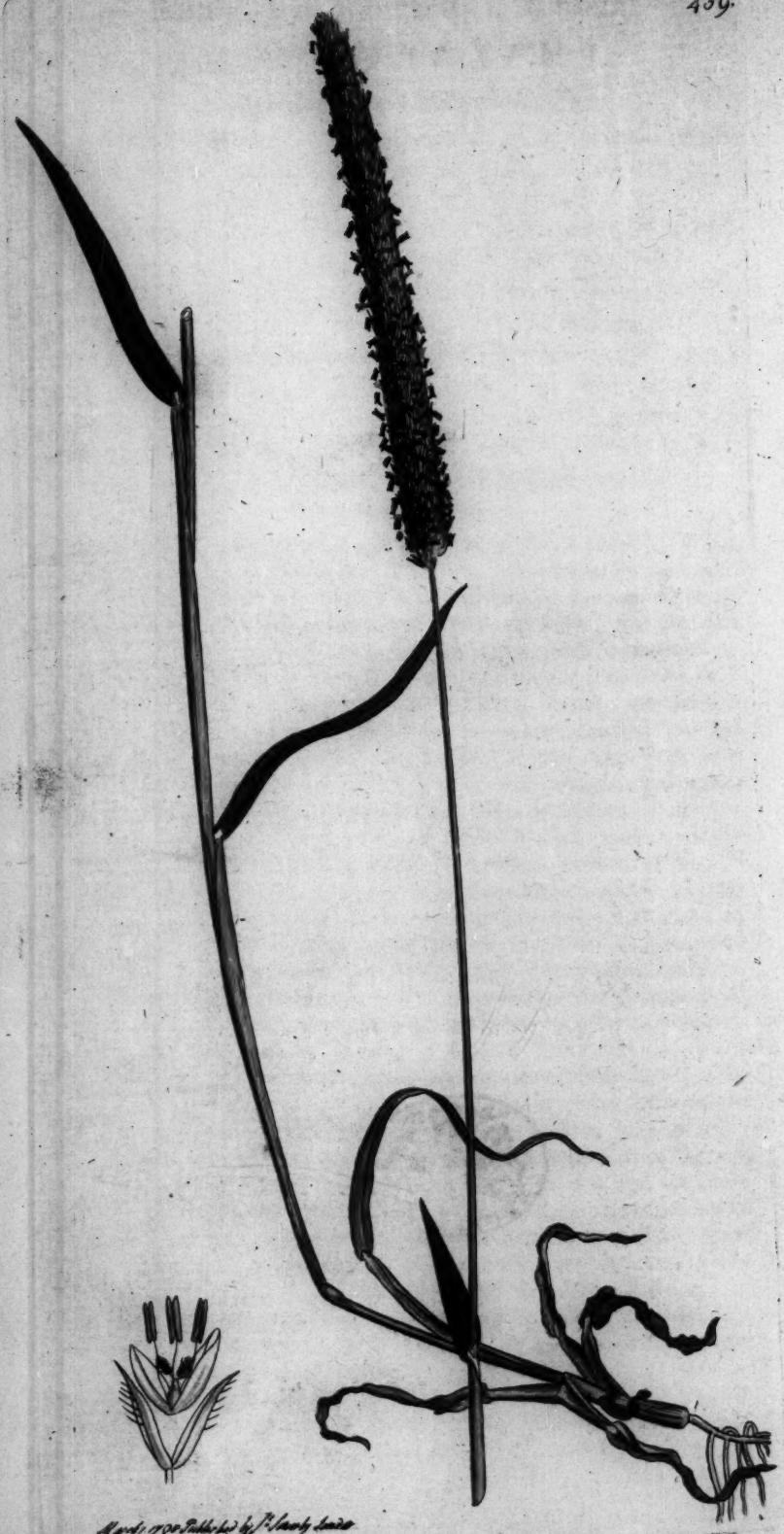
Root ſmall, branching. Stem very much branched from the bottom, forming a low buſhy herb very various as to luxuriance, forked, ſmooth, with 4 ſharp edges. Leaves ovate; the lower ones very broad; thoſe which accompany the upper flowers lanceolate. Flowers not ſeſſile as in *C. Centaurium*, t. 417, but on ſhortiſh ſtalks, from each divarication of the ſtem, erect. Calyx deeply divided into 5 narrow awl-ſhaped ſegments, more than half as long as the tube of the corolla, which is extremely ſlender and membranous; the limb is of a full pink, more delicate and narrow than that of *C. Centaurium*. Neither do the antheræ twiſt ſo much in ripening as thoſe of that ſpecies, making ſcarcely one turn. In the germen, ſtyle, &c, we have found no great difference. Our figure of the *Centaurium* repreſents the ſtigmas cloſed, and partly fading; in that of the *pulchella* we have drawn them ſpreading, as before impregnation. Capſule long, cylindrical, inveſted with the corolla. Seeds very numerous.

We are certain from the ſpecimen communicated by Roſen to Linnæus that this is his *Gentiana Centaurium var. β*, and we are equally certain from Dr. Swartz's original ſpecimen that it is his G. *pulchella*, though he deſcribes his with a ſimple ſtem and ſolitary flower, having met with it only in a ſtarved ſtate. The characters above given ſeem to make it diſtinct from *Centaurium*, though both ſpecies vary ſo much in luxuriance that they ſometimes approach very near each other in that reſpect. The Linnæan Herbarium has a Swediſh plant referred to *Centaurium*, in which the calyx is longer than the tube, leaves narrow, ſpatulate, and the ſtem unbranched. We ſuſpect it muſt be different from both the above, but have not obſerved it in England.

CHIRONIA pulchella.

Dwarf branched Centaury.

G.R. III.
BRITISH MUSEUM



March 1790 Published by J. Sowerby London

PHALARIS phleoides.

Cat's-tail Canary-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 carinated equal valves, longer than the corolla, ſingle flowered.

SPEC. CHAR. Panicle nearly cylindrical, in the form of a ſpike. Glumes linear-lanceolate, ſmoothiſh, their inner margin abrupt. Stem ſimple.

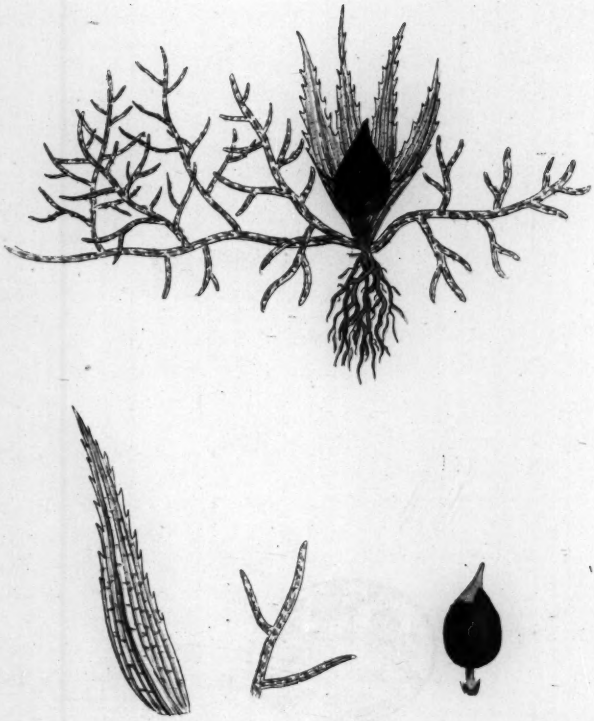
SYN. Phalaris phleoides. *Linn. Sp. Pl.* 80. *With.* 114. *Fl. Dan. t.* 531.

Gramen typhinum, ſpicâ conoide ſtriatâ, culmo violaceo. *Barrel. Ic. t.* 21.

A NATIVE of high ſandy countries, found by Mr. Crowe and Mr. Woodward on Swaffham heath in 1780; but it appears from the Bankſian Herbarium that the late Mr. Lyons had previouſly gathered it in Cambridgeſhire, though the two gentlemen above mentioned have the merit of determining it, Mr. Hudſon having ſuppoſed his *Phleum paniculatum* (a very different graſs) to be the *Phalaris phleoides* of Linnæus, which laſt he probably never ſaw. The Rev. Mr. Hemſted gathered this ſpecimen on Chippenham Park wall, Cambridgeſhire, flowering in July.

Root fibrous, perennial, crowned with tufts of ſpreading glaucous leaves which endure the winter. Straw ſimple, generally ſolitary, moſt leafy below, round, ſmooth, purple and ſhining above, a foot and half high. Leaves ſheathing, linear-lanceolate, rough at the edge, their ſheaths ſcarcely inflated, roughiſh. Panicle terminal, ſolitary, erect, denſe, nearly cylindrical and exactly like a ſpike, but when bent on one ſide it ſeparates into lobes or branches of ſeveral flowers each. Calyx nearly linear, ſomewhat conſtricted near the top, purpliſh; the valves linear-lanceolate, compreſſed, pointed, 3-nerved, a little divaricated at the point, and furniſhed with a white membranous margin which at its ſummit is in ſome degree abrupt, approaching to the ſtructure of a *Phleum*; but this ſpecies cannot be conſidered as ſuch, on account of its ſtrict affinity to *Phalaris arenaria*, ſee our *t.* 222, from which it differs however, as a ſpecies, in having a perennial root, a branched or panicled ſpike, glumes leſs frequently and completely ciliated, and lanceolate (not abrupt or crenate) petals.——We regret that we have not yet been able to obtain a wild ſpecimen of *Phleum paniculatum*, that it might have been publiſhed at the ſame time with this.

G.R. III.
BRITISH MUSEUM



March 1. 1798 Published by J.s Sowerby London

PHASCUM ſerratum.

Serrated Phaſcum.

CRYPTOGAMIA Muſci.

GEN. CHAR. *Capſule* ovate, without any ſeparate lid. *Veil* minute, deciduous.

SPEC. CHAR. Shoots capillary, jointed, branched. Capſule ſurrounded with lanceolate ſerrated leaves riſing above it.

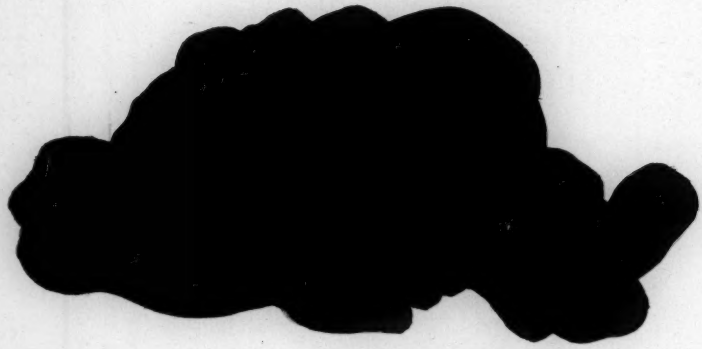
SYN. Phaſcum ſerratum. *Dickſ. Crypt. faſc.* 1. *t.* 1. *f.* 1. *With.* 785.

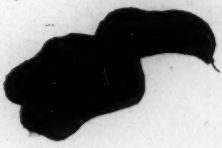
THIS minute vegetable, hardly viſible to the naked eye, was firſt diſcovered in England by Mr. Dickſon, on the north ſide of Muſwell-hill near Highgate. Our ſpecimens were gathered in Cambridgeſhire, by the Rev. Mr. Hemſted, in March laſt.

It forms tufts of pellucid green jointed filaments, very much reſembling a *Byſſus* at firſt ſight, but, when highly magnified, as in our figure, aſſuming the appearance of a *Conferva*. From the common origin of theſe filaments, near the crown of the little root ariſe about four erect lanceolate reticulated and ſerrated pellucid leaves, enveloping an almoſt ſeſſile ovate brown capſule, tapering to a paliſh point, but without any ſeparating cover or lid. The veil, which Mr. Dickſon mentions not having ſeen, is ſmall, oblique and ſharply pointed.

At page 330 of this work we have been led by Linnæus into an error concerning the generic character of *Phaſcum*, which is here corrected.

G.R. III
BRITISH MUSEUM





March 1. 1790 Published by J. Sowerby London

TREMELLA Noſtoc.

Ground Tremella.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Fructification* ſcarcely perceptible, in a membranous jelly-like ſubſtance.

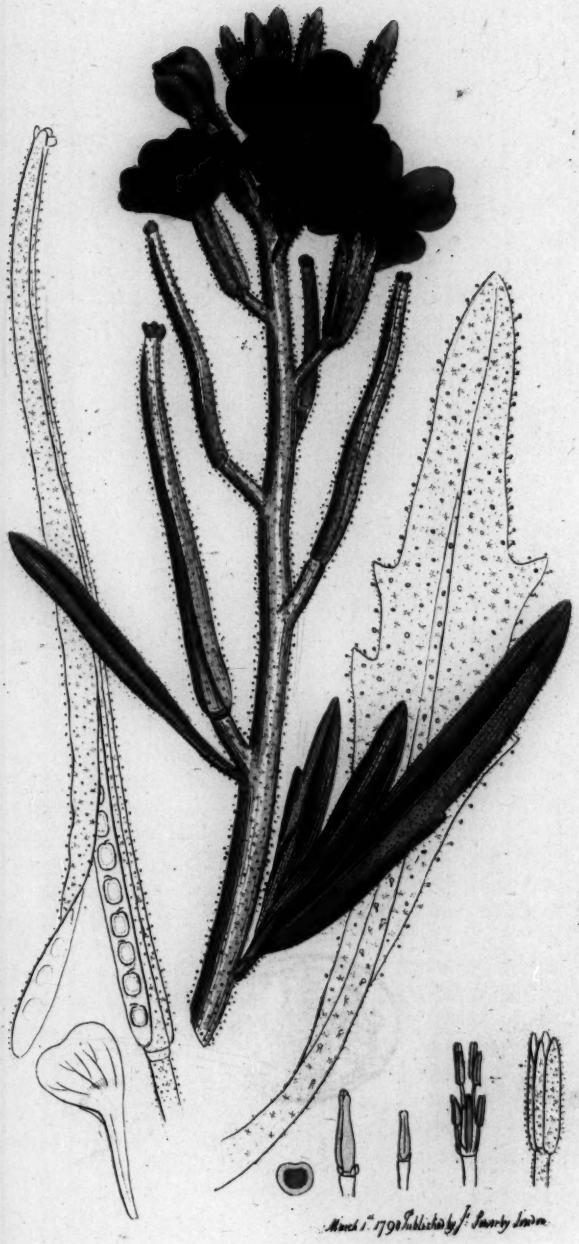
SPEC. CHAR. Seſſile, roundiſh, plaited, waved, of an olive green.

SYN. Tremella Noſtoc. *Linn. Sp. Pl.* 1625. *Hudſ.* 564. *With. V.* 4. 80. *Relh.* 441. *Sibth.* 390.
Ulva terreſtris pinguis et fugax. *Raii Syn.* 64.

THE right honourable Lady Arden, in her reſearches for *Fungi*, met with this fine ſpecimen of the *Tremella Noſtoc*, which is not indeed an uncommon plant in paſtures, or on gravel walks, after rainy weather, at various ſeaſons of the year, though ſeldom ſo large as is here repreſented. It grows very ſlightly attached to the ground, of a tender gelatinous ſubſtance, forming a variouſly convoluted waved and inflated leaf, of a dull or olive green, quite ſmooth. On the return of dry weather, it ſuddenly dries up, becomes black and brittle, and diminiſhes ſo much in ſize as to be eaſily overlooked. Its fructification has not, to our knowledge, been obſerved; but there is every reaſon to ſuppoſe it is propagated by ſeeds, which muſt be lodged in the gelatinous ſubſtance. The generic character therefore between this vegetable and the *Ulvæ* is by no means clear. The latter indeed are more membranous, and for the moſt part of marine origin; but we are not yet furniſhed with ſatisfactory characters to diſcriminate them from this and ſome other *Tremellæ*. Ray and Dillenius make this an *Ulva*.

This ſingular production has given riſe to many ſtrange ideas. The vulgar ſuppoſe it the remains of a fallen ſtar, or of a Will-of-the-Wiſp. Some Italian philoſophers have miſtaken for it a gelatinous ſubſtance which is nothing more than the remains of frozen frogs, as Dr. Withering has very ſatisfactorily ſhewn, and thence it was by chemical analyſis proved to be an animal! Others have made a ſimilar miſtake reſpecting young aquatic ſnails. See *Tour on the Continent, V.* 3. 150.

G.R. III.
BRITISH MUSEUM



March 1. 1790 Published by J.t Sowerby London

CHEIRANTHUS ſinuatus.

Sea Stock.

TETRADYNAMIA Siliquoſa.

GEN. CHAR. *Germen* with a glandular tooth on each ſide. *Calyx* cloſed; 2 of its leaves gibbous at the baſe. *Seeds* flat.

SPEC. CHAR. Leaves downy, blunt, ſinuated; thoſe on the branches entire. Pods prickly.

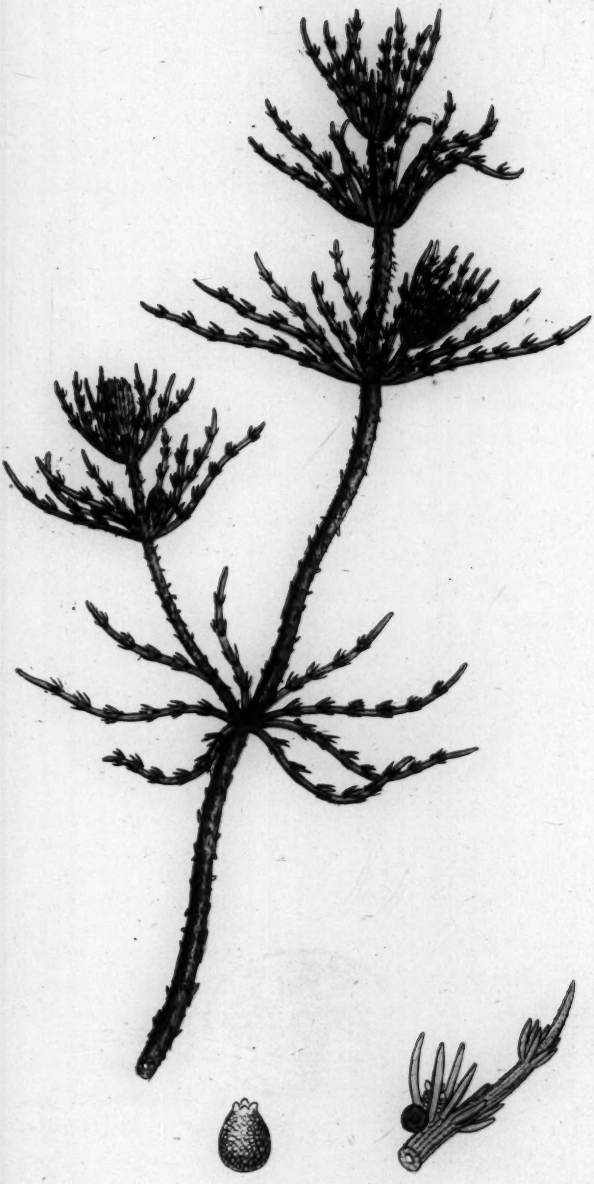
SYN. Cheiranthus ſinuatus. *Linn. Sp. Pl.* 926. *Hudſ.* 288. *With.* 586.

Leucojum marinum majus. *Raii Syn.* 291.

THIS fine plant is a native of the ſandy ſea-ſhores of Wales and Cornwall; it was ſent us from Pembroke by John Adams Eſq. F.L.S. flowering in Auguſt. It is well worthy of cultivation in a garden, the flowers being very conſpicuous and ornamental, and highly fragrant in an evening. It is eaſily propagated by ſeed, and the root is biennial.

Whole herb clothed with hoary ſtellated intricate down. Stem 2 feet high, branching, round, leafy. Leaves a little ſucculent, alternate, oblong, blunt, with 2 or 3 large indentations on each ſide; the upper ones however are entire. Flowers in terminal *corymbi* afterwards lengthened out into ſpikes, of a reddiſh lilac or purple colour, much reſembling thoſe of the garden ſtock, but not fragrant by day. Calyx compreſſed, purpliſh, hoary. Petals with a long white claw. Two of the ſtamina very ſhort. Stigma with 4 notches. Germen very downy. Pods long, of 2 cells, compreſſed, hoary, and ſprinkled with glandular prickles, ſuch as are found more ſparingly on the leaves. Seeds numerous, flat, with a membranous border. The whole plant has a ſtrong alkaline bitteriſh flavour. Mr. Hudſon, in his firſt edition, miſtook this for the C. *tricuſpidatus* of Linnæus, a ſpecies which much reſembles ours, but is remarkable for 3 large projecting points which terminate the pod.

G.R.
III.



March 1. 1790 Published by J.t Sowerby London.

CHARA hiſpida.

Prickly Chara.

MONANDRIA Monogynia.

GEN. CHAR. *Cal.* none. *Cor.* none. *Anthera* ſeſſile. *Style* none. *Berry* with many ſeeds.

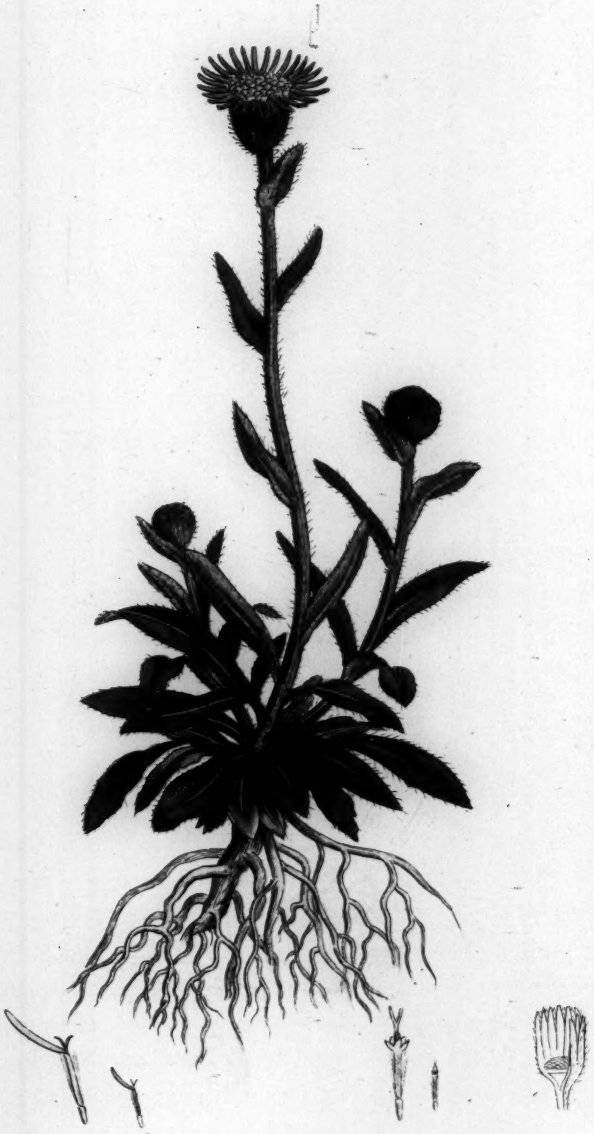
SPEC. CHAR. Prickles on the ſtem briſtly, in cluſters.

SYN. Chara hiſpida. *Linn. Sp. Pl.* 1624. *Hudſ.* 398. *With.* 3. *Relh.* 345.

C. major, caulibus ſpinoſis. *Raii Syn.* 132.

WE are obliged for this ſpecimen to Mr. William Skrimſhire of Wiſbeach, who gathered it in a clay-pit near that place. This plant varies in ſize, but moſt commonly reſembles in habit the *Chara vulgaris*, *t.* 336, differing from that ſpecies chiefly in having the ſtem covered more or leſs uniformly with cluſters of ſhort briſtly prickles, eſpecially in the upper part, and thoſe prickles are often bent downwards. The leaves alſo bear ſimilar cluſters on their upper ſide, with a ſolitary flower accompanying each. The parts of fructification very much agree with thoſe of C. *vulgaris*, of which we are inclined to think this a variety. However that may be, both theſe plants are generally clothed with a fine earthy cruſt, expreſſed in our *t.* 336, but the preſent ſpecimen was deſtitute of it. This cruſt is commonly ſuppoſed to belong to the plant; but having obſerved it, in ſome waters, on all kinds of plants that grow under the ſurface, and in others on but few kinds, or not on any one, we conceive it to conſiſt merely of calcareous earth depoſited from the water, the acid which had diſſolved and ſuſpended it having been perhaps abſorbed by the plant, either in reſpiration or otherwiſe. This circumſtance merits farther enquiry.

G.R. III.
BRITISH MUSEUM



May 1. 1798. Published by J.T. Stanley, Lewin.

ERIGERON alpinum.

Alpine Flea-bane.

SYNGENESIA Polygamia-ſuperflua.

GEN. CHAR. *Recept.* naked. *Seed-down* ſimple. *Florets* of the radius linear, very narrow.

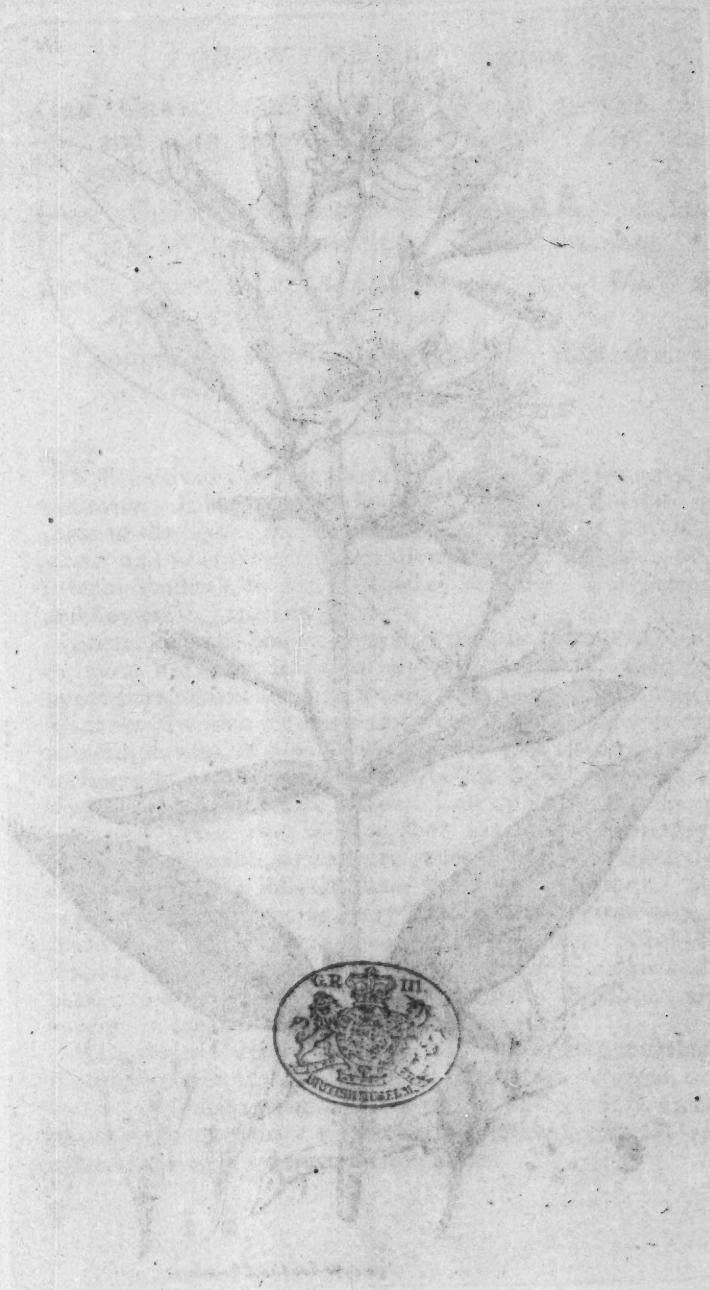
SPEC. CHAR. Stems almoſt ſingle-flowered. Calyx ſlightly hairy.

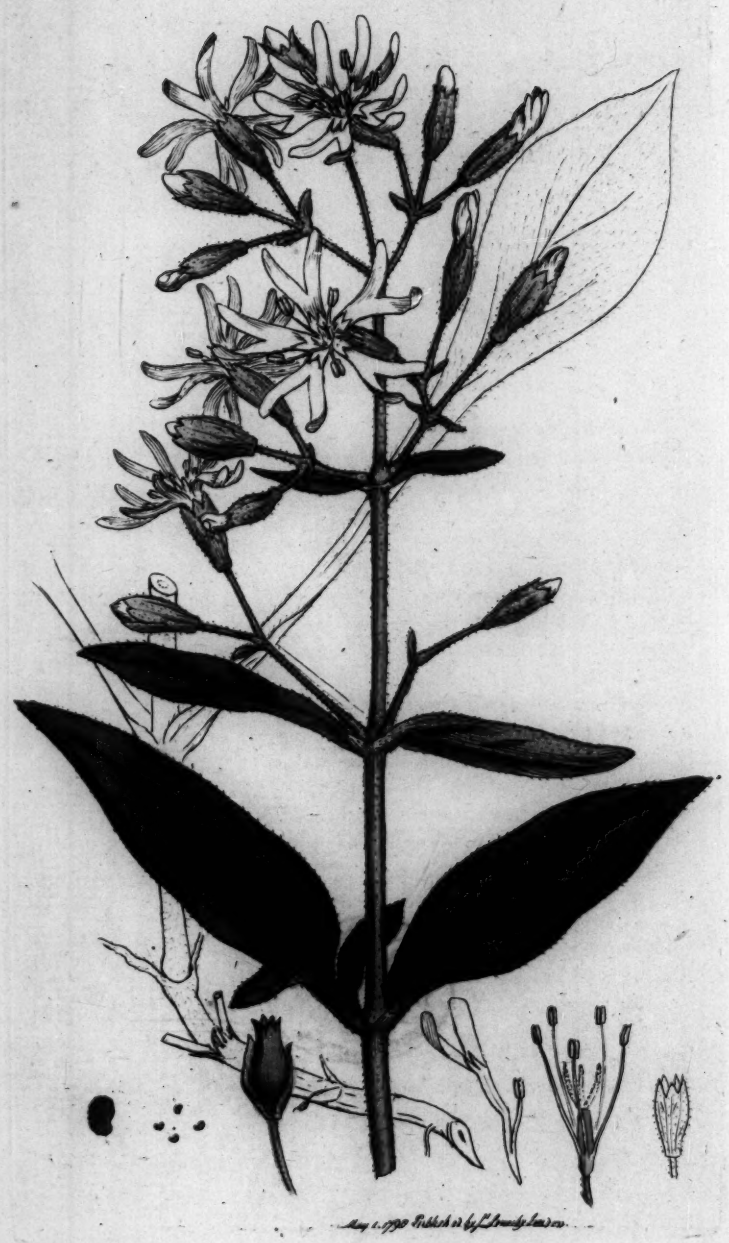
SYN. Erigeron alpinum. *Linn. Sp. Pl.* 1211. *Dickſ. in Linn. Tranſ. V.* 2. 288. *With.* 718. *Fl. Dan. t.* 292.

FIRST diſcovered by Mr. Dickſon upon moiſt rocks of the mountain Ben Lawers in Scotland. Our ſpecimen was ſent by Mr. Mackay. It is perennial, and flowers in July.

The root conſiſts of many long ſimple round fibres. Stems ſeveral, erect, leafy, angular and rather hairy, naturally ſimple, and bearing one or, at moſt, two flowers; but in a luxuriant ſoil, or when by accident broken, they ſhoot out into many ſingle-flowered branches. Leaves ſpatulate, ribbed, hairy; thoſe on the ſtem alternate, ſeſſile, and dilated at their baſe. Flower erect. Calyx of numerous linear upright leaves, ſlightly hairy, often reddiſh. Central florets very numerous, tubular, yellowiſh, hermaphrodite, but with the thickened ſtigma that according to Dr. Stokes indicates barrenneſs; a point we have no means of aſcertaining. The ſeeds of theſe florets however look as if perfect. Florets of the radius numerous, ligulate, very narrow, ſpreading, pale purple, furniſhed with a ſtyle and ſlender ſtigmas, no ſtamina. Seeds of all the florets hairy. Seed-down turning reddiſh, and, when very highly magnified, rough. Receptacle naked, marked with minute depreſſions.

Like moſt alpine plants, this varies very much in ſize according to ſoil and ſituation. The E. *uniflorum*, if diſtinct, is to be known from it chiefly by the calyx being woolly, or clothed with long thick-ſet white hairs.


G.R. III
BRITISH MUSEUM



May 1, 1790 Published as the Act directs by J. Sowerby, London

SILENE nutans.

Nottingham Catch-fly.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* ſwelling. *Petals* 5, with claws, and with a crown at the mouth. *Capſ.* three-celled.

SPEC. CHAR. Petals cloven. Lateral flowers drooping, all towards one ſide. Panicle drooping.

SYN. Silene nutans. *Linn. Sp. Pl.* 596. *Hudſ.* 188. *With.* 413. *Fl. Dan. t.* 242.

Lychnis ſylveſtris alba 9 Cluſii. *Raii Syn.* 340. *Ger. em.* 470. *Deering Nott.* 137.

WE received this from Nottingham Caſtle by favour of Mr. Ordoyno. It loves a lime-ſtone ſoil, and was obſerved upon rocks in the bed of the river Dove, Derbyſhire, by Mr. Woodward; and near North Queen's-ferry, for the firſt time we believe in Scotland, by Mr. J. Mackay in 1793. It is perennial, and flowers in June and July.

Stems ſeveral, ſimple, bowed at the baſe, then erect, a foot or more in height, leafy, jointed, round, downy, viſcid in the upper part, terminating in a forked panicle, the ſummit and branches of which all droop towards one ſide. Leaves entire, pointed, downy, of a paliſh green, lanceolate; the radical ones inclining to obovate, and forming thick tufts. Flowers nodding, white, of a delicate texture. Calyx obovate, membranous, with ten green ribs, downy, but not very remarkably ſo, ſometimes purpliſh, as are very generally the long footſtalks of the leaves at their inſertion, and the baſe of the ſtem. Petals expanding in the evening, very deeply cloven, crowned with a ſharp cloven projection between their ſegments. Five of the ſtamina projecting, the other 5 ſhorter than the claws of the petals, to which they are more particularly attached. Styles varying in length. Seeds rugged, numerous.

The Dover Catchfly, *Raii Syn.* 340. 12, ſo long miſtaken for Cucubalus viſcoſus *Linn.*, has of late been referred to this ſpecies of Silene; but we have reaſon to think it S. *paradoxa*. On this point however we do not abſolutely decide till we can obtain freſh wild ſpecimens from Dover.

G.R. III.
BRITISH MUSEUM

Published by J. Sowerby London.

ASTRAGALUS uralenſis.

Hairy Mountain Milkwort.

DIADELPHIA Decandria.

GEN. CHAR. *Pod* of two cells, ſwelling.

SPEC. CHAR. Stem none. Stalk upright, longer than the leaves. Pods oblong, hairy, erect.

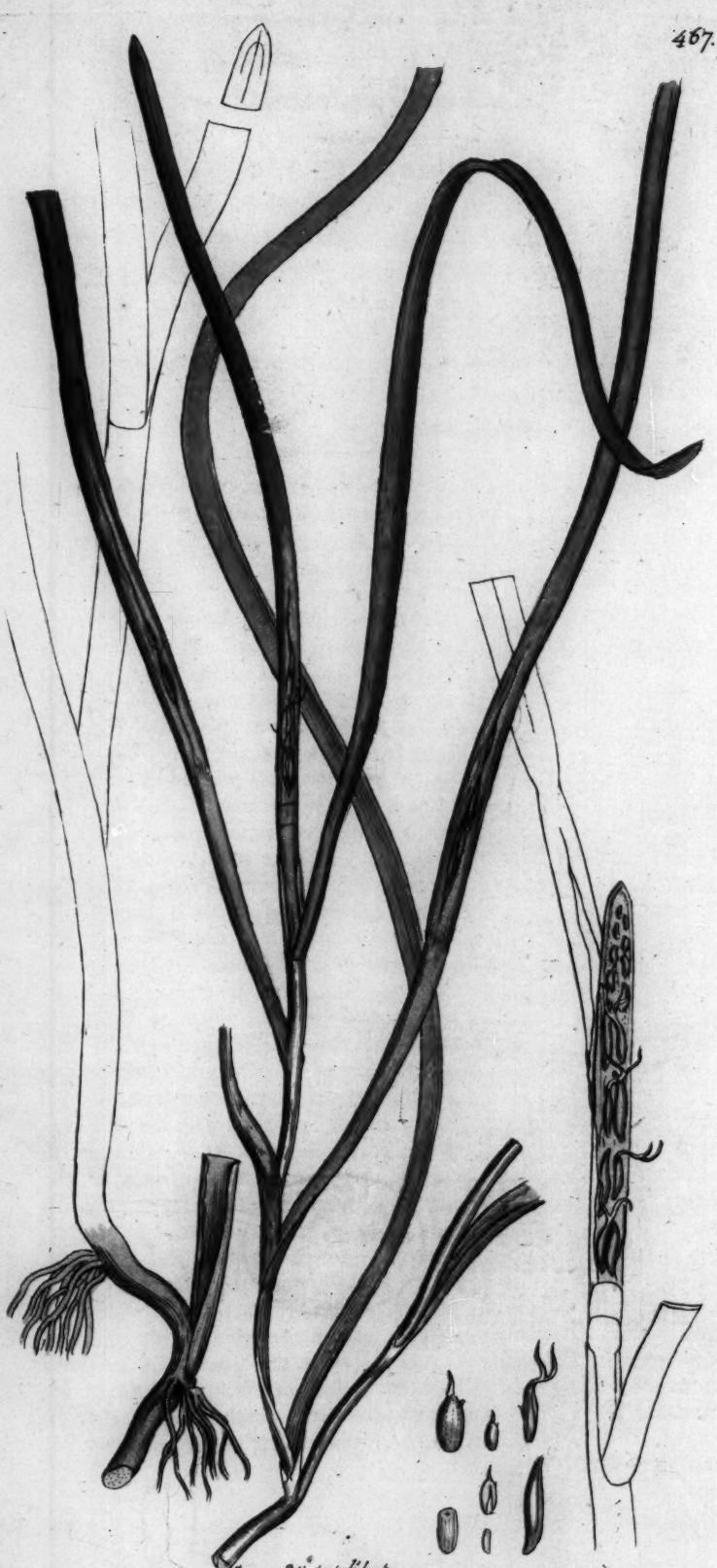
SYN. Aſtragalus uralenſis. *Linn. Sp. Pl.* 1071. *Hudſ.* 323. *With.* 644. *Lightf.* 401. *t.* 17.

THIS has been found, chiefly in a ſandy ſoil, on various mountains of Scotland; it was ſent by the late Dr. Hope to Linnæus, and we have received it from Mr. Mackay and Mr. Bruce.

The root is ſtrong, woody and perennial, dividing at the crown into ſeveral leafy tufts. Leaves all radical, ſpreading, pinnate: leaflets ſeſſile, generally oppoſite, the lowermoſt often more remote and ſometimes alternate, the terminal one generally ſmaller than the reſt; all of them are ovate, ſometimes lanceolate, entire, acute, a little concave above, clothed all over, but eſpecially beneath, with ſilky hairineſs, as is the common footſtalk likewiſe, which is often more permanent than the leaflets, hardening into a ſort of ſpine. It has a pair of broad membranous ſtipulæ at the baſe. Stalk ſimple, hairy, upright, a little longer than the leaves, bearing a ſhort ſimple ſpike (erroneouſly repreſented branched in Lightfoot's figure) of handſome purple flowers, whoſe calyx is clothed with a mixture of black and white hairs. Bracteæ lanceolate, hairy. Pods erect, inflated, cylindrical, rather more than half an inch long, terminating in a ſharp oblique point, thickly clothed with brown cloſe-preſſed hairs. It flowers in July.

Copious wild ſpecimens of this plant from Mr. Bruce, as well as thoſe of Dr. Hope, being compared with the two original Siberian ones of Linnæus, leave not the leaſt doubt of its being his *A. uralenſis*, though his are more luxuriant than ours, as alſo thoſe deſcribed in the *Hortus Upſalienſis*, copied by Dr. Withering, appear to have been. Hence aroſe ſome uncertainty reſpecting the identity of the Scotch *Aſtragalus*, which we are happy to remove. A Swiſs ſpecimen from Mr. Davall proves it alſo to be the No. 410 of Haller, as quoted by all authors.

G.R. III.
BRITISH MUSEUM



ZOSTERA marina.

Common Graſs-wrack.

MONANDRIA Monogynia.

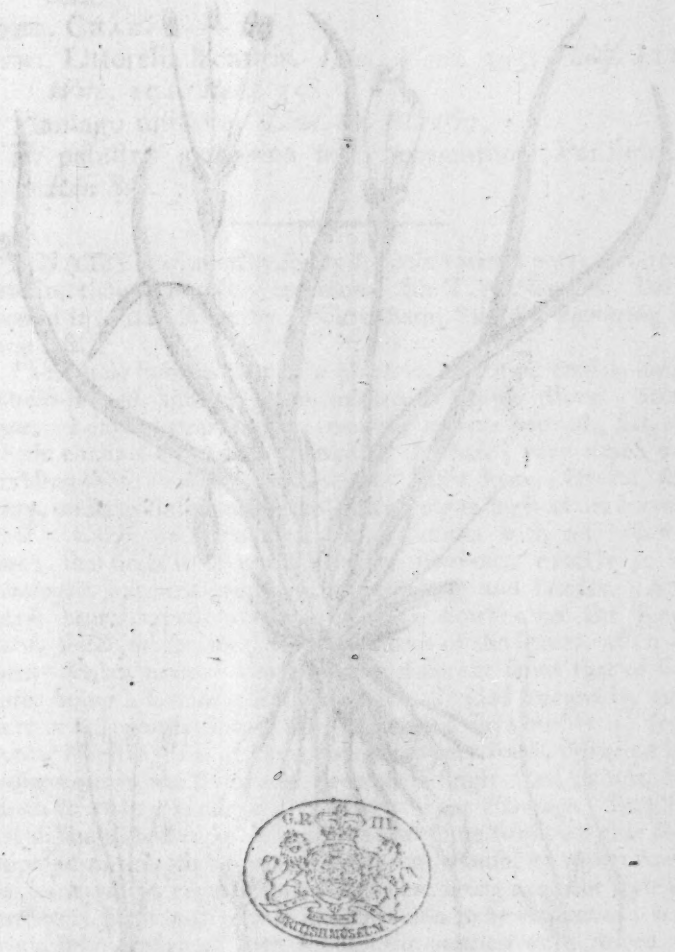
GEN. CHAR. *Spadix* linear, ſheathed by the baſe of the leaf, bearing the fructifications on one ſide, in two ranks. *Cal.* and *Cor.* none. *Anthera* ſeſſile. *Stigmas* two, linear. *Capſule* with one ſeed.

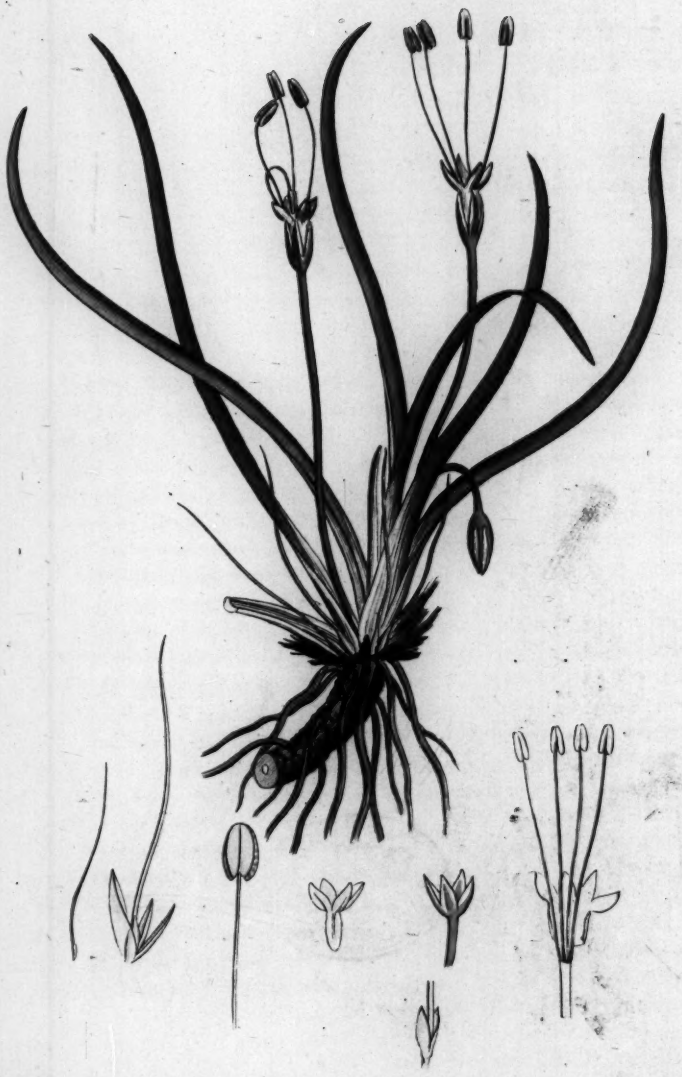
SPEC. CHAR. Capſules ſeſſile.

SYN. Zoſtera marina. *Linn. Sp. Pl.* 1374. *Hudſ.* 395. *With.* 496.

Alga. *Raii Syn.* 52.

NOTHING can be more deſirable to a philoſophical botaniſt, than to acquire a right idea of the fructification of thoſe plants whoſe peculiar ſituations require ſome variation from the uſual mode in which impregnation is performed. This is the caſe with many aquatics, and among others the *Zoſtera*, whoſe flowers are completely protected from the ſalt water, under which they grow, by the ſheathing baſe of the leaf, which cloſely enfolds them. Their ſtructure is in other reſpects ſo peculiar, that botaniſts have differed about their claſs in the Linnæan ſyſtem. The author of that ſyſtem placed this genus in *Gynandria*, conſidering its *ſpadix* as the common receptacle of one flower, compoſed of many *antheræ*, ranged alternately with many *piſtilla*. Thunberg and Withering, aboliſhing that claſs, have referred *Zoſtera* to *Polyandria Polygynia*. To us it appears that the flowers are by no means gynandrous, as the *ſtamina* cannot in any ſenſe be underſtood to grow out of the *piſtilla*; neither are they ſimply polyandrous, as in every ſuch flower the male organs are invariably collected around the central collected females. Nor will the analogy of *Arum*, however we may underſtand that flower, at all help us to comprehend this, they having no real affinity. *Zoſtera* is eaſieſt underſtood as a ſimple unilateral ſpike of naked flowers, diſpoſed in two ranks. The anthera of each is ſeſſile, oblong, a little curved. By its ſide is affixed an oblong germen, with a ſhort ſtyle, bearing two long, linear, pointed ſtigmas. Theſe organs are arranged along the ſpike in an alternate manner, ſo that each anthera may perhaps impregnate the germen of the flower below it; nor ſhould we much diſpute the point with any one who might conſider them as belonging to each other, only that there would then remain an unoccupied anthera at the bottom of all. The capſule is membranous, containing one elliptical yellowiſh ſeed, and is affixed (like the germen) by a ſhort lateral footſtalk.——The *Zoſtera marina* is ſuppoſed to be perennial, throwing out roots from the joints of its long round branching ſtem. The leaves are very long, linear, flaccid, and tender. It is common in ſalt-water ditches, flowering in Auguſt and September. Mr. Turner ſent theſe very perfect ſpecimens from Yarmouth.


G.R. III.
BRITISH MUSEUM



May 1.st 1790 Published by J. Sowerby London

LITTORELLA lacuſtris.

Plantain Shore-weed.

MONOECIA Tetrandria.

GEN. CHAR. Male, *Cal.* 4-leaved. *Cor.* of one petal, 4-cleft. *Stamina* very long.

Female, *Cal.* none. *Cor.* of one petal, unequally 3-cleft. *Style* thread-like, very long. *Nut* of one cell.

SPEC. CHAR. ----

SYN. Littorella lacuſtris. *Linn. Mant.* 295. *Hudſ.* 415. *With.* 194. *Relh.* 358.

Plantago uniflora. *Linn. Sp. Pl.* 167.

P. paluſtris gramineo folio monanthos, Pariſienſis. *Raii Syn.* 316.

A NATIVE of marſhy ſandy ſpots in various parts of Great Britain, though not very common. Sir T. G. Cullum, Bart. ſhewed it to Mr. Sowerby at Cavenham, Suffolk, flowering in June laſt.

The whole habit is that of a plantain. Root perennial, long, ſpindle-ſhaped, throwing out numerous ſimple fibres. Stem none. Leaves linear, entire, ſmooth; convex beneath, flat, or a little channelled above; dilated at the baſe; very much reſembling thoſe of *Plantago maritima*. Male flowers ſeveral, ſolitary, on long ſimple naked ſtalks ſcarcely ſo high as the leaves, erect. Calyx of 4 equal leaves. Corolla with an inflated tube; the limb in 4 equal concave diviſions, exactly as in *Plantago*. Stamina equal, erect, very long and ſlender. Antheræ heart-ſhaped, vertical. Female flowers on the ſame plant, ſeſſile at the root, in the boſoms of the leaves, often in pairs. Calyx none. Corolla quite different from that of the male, being a ſort of elliptical ſheath, divided unequally, and more or leſs deeply, into 3 (Dr. Withering ſays moſtly 4) ſegments, inveſting the germen, which is very ſmall, crowned by a long taper acute ſtyle, and becomes a ſingle ſeed or nut, by which this plant is eſſentially different from *Plantago*. Bergius firſt diſtinguiſhed them. Linnæus had ſome ſuſpicion that this ſuppoſed nut might be no true ſeed, but a bulb, or rather bud; but its having a regular ſtyle, and there being no other ſtyle or germen to be found, proves this ſuſpicion to be erroneous; nor would it be confirmed even though the germen were proved to be occaſionally transformed into a bulb, as happens in certain viviparous plants, *Polygonum*, *Feſtuca*, &c.

G.R. III.

CARDAMINE haſtulata.

Alpine Ladies-ſmock.

TETRADYNAMIA Siliquoſa.

GEN. CHAR. *Pod* burſting elaſtically, the valves turning back. *Stigma* entire. *Cal.* a little ſpreading. One *Gland* on each ſide, between the ſhorter ſtamina and the calyx.

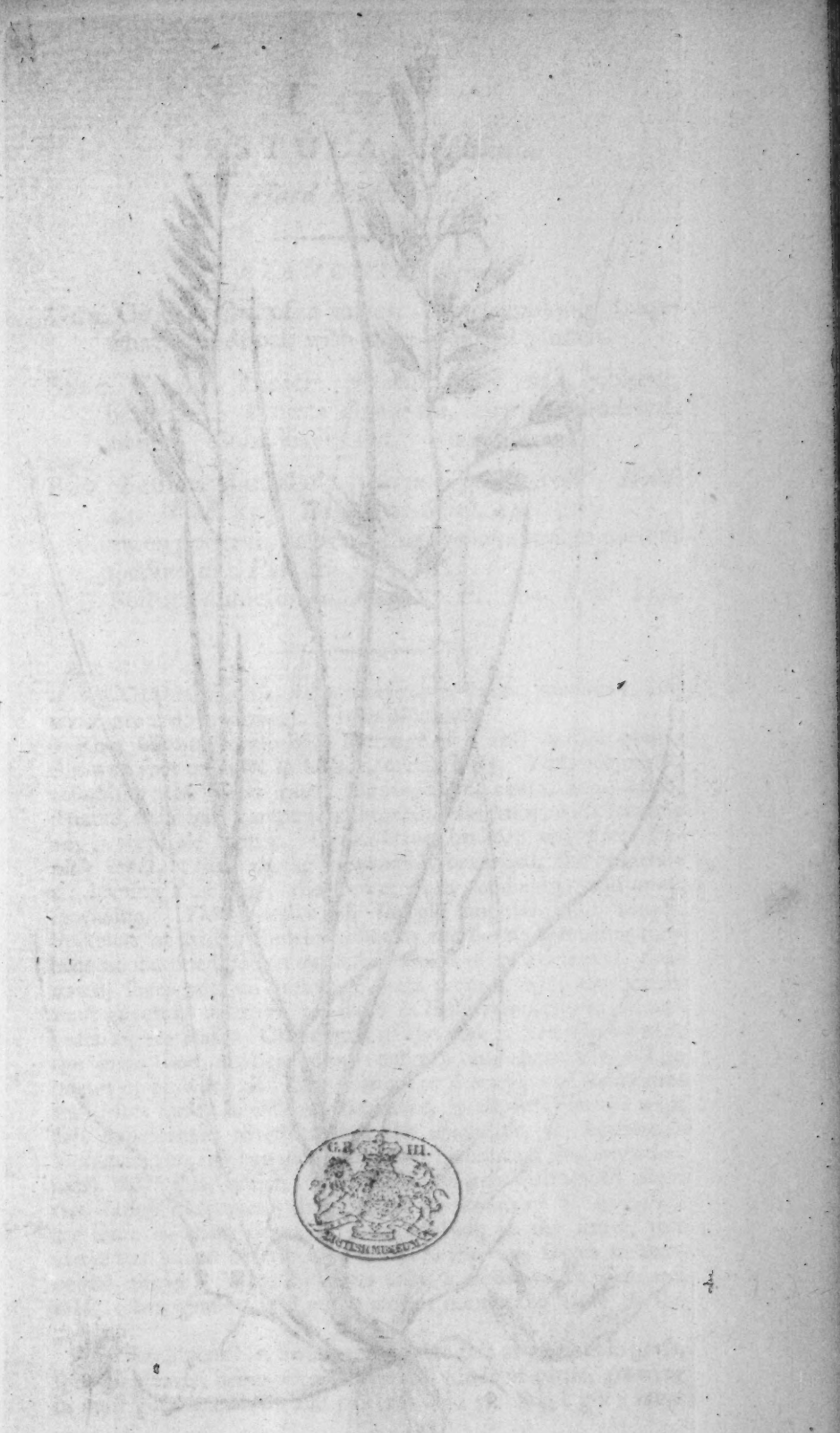
SPEC. CHAR. Radical leaves haſtate or lyrate; ſtem-leaves lanceolate, entire.

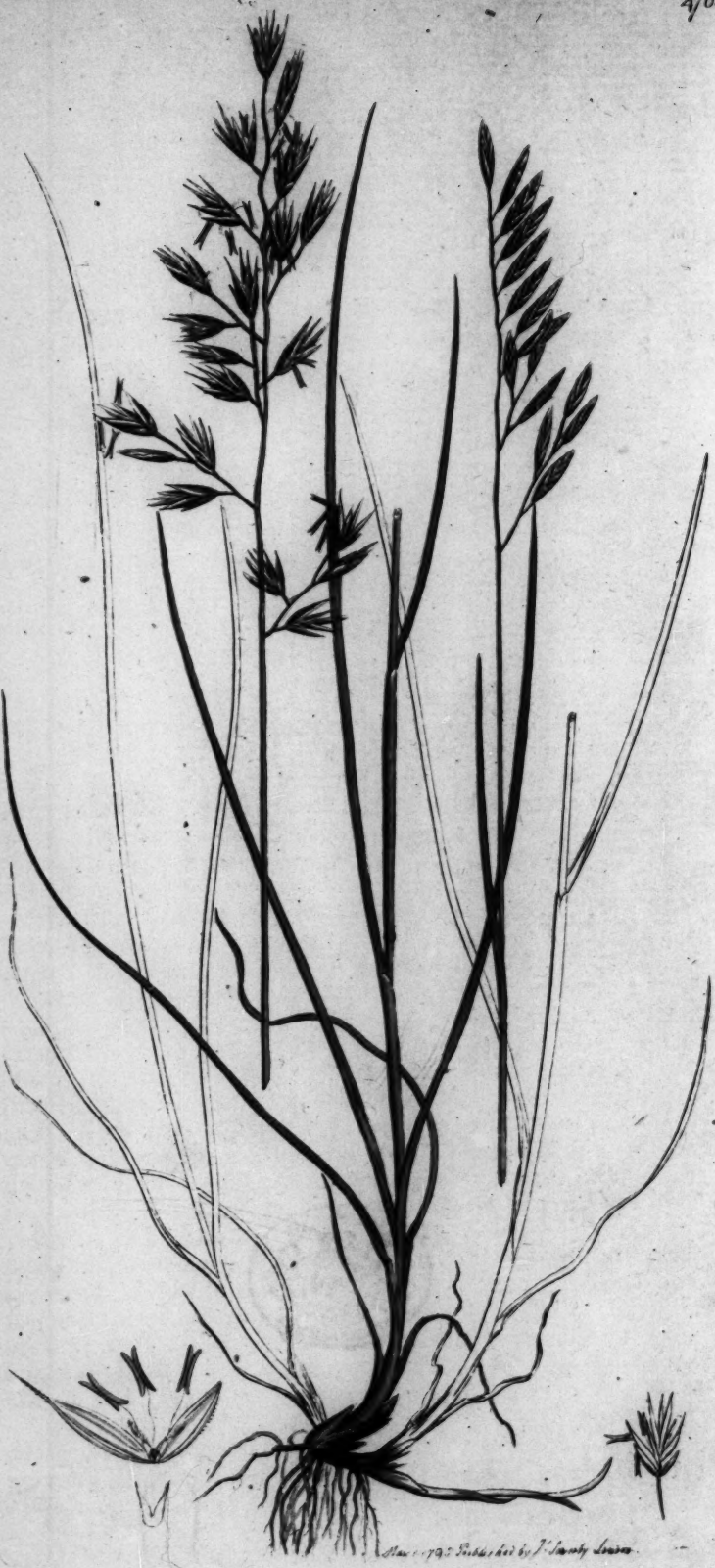
SYN. Cardamine petræa. *Lightf.* 347. *t.* 15. *f.* 2.

SENT by Mr. Mackay from Scotland, where it grows in alpine ſituations upon moiſt rocks and about rivulets, flowering in July.

Root perennial, long and ſomewhat woody, branching at the ſummit, and crowned by ſeveral tufts of ſpreading leaves, which are ſmall, ſlightly ſucculent, halbert-ſhaped, ſometimes (having two ſmall additional lobes towards the baſe) becoming lyrate; the lobes are moſtly entire, ſcarcely ever toothed. The leaves on the ſtem, except one or two at the bottom, are alternate, lanceolate approaching to elliptical, obtuſe, entire, with never more than one ſolitary notch in any of them, and that rarely. Stem erect, round, ſmooth, a little branched, bearing ſpiked cluſters of pedunculated flowers, rather large in proportion to the plant, white or purpliſh. Calyx a little ſpreading, its edges white. Petals ſpreading, entire. Stigma ſimple, obtuſe. Valves of the pod burſting from the baſe and in ſome degree recurved.

That this is the plant Mr. Lightfoot intended, we know by ſpecimens from himſelf and Mr. Stuart. His figure indeed is not extremely correct; but his deſcription, which ſeems to be original, is very good. We have received from Mr. Jacquin jun. for *C. petræa*, a ſpecimen differing from ours only in having the radical leaves leſs deeply lobed, and ſcattered with a few ſimple white hairs, whereas ours are quite ſmooth, except that one ſpecimen has a few ſuch hairs on the leaf-ſtalks. The true Swediſh C. *petræa* of Linnæus is however a different plant, with oblong many-toothed ſmooth leaves, more near to Jacquin's than to ours, ſo that we have been obliged to chooſe a new name. Neither dare we quote the Welch plant of Ray, Dillenius, Hudſon, and Withering, which upon the moſt accurate ſcrutiny we believe to be *Arabis hiſpida* of Linnæus, by miſtake called *Siſymbrium arenoſum* in his Flo. Suec. the latter not being a native of Sweden. In this *Arabis* the leaves are lyrate with ſeveral lobes, and clothed with forked and branched hairs; the pods burſt at the top firſt, then at the bottom, and the valves do not curl back; ſo that it is no *Cardamine*. We recommend it to the examination of Welch botaniſts. We have a ſpecimen of the ſame (without fructification) gathered in Scotland by a Mr. Lindeſay in 1728, evidently different from our C. *haſtulata*. *Flo. Dan. t.* 386 ſeems intended for this *Arabis hiſpida*.


G.R. III.
BRITISH MUSEUM



FESTUCA duriuſcula.

Hard Feſcue-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, ſomewhat cylindrical, with ſharp-pointed glumes.

SPEC. CHAR. Panicle pointing one way, oblong, branched. Florets about ſix, nearly cylindrical, awned. Stem-leaves flat. Root fibrous.

SYN. Feſtuca duriuſcula. *Linn. Sp. Pl.* 108. *Hudſ.* 44. *With.* 153. *Relh.* 40. *Sibth.* 44.
Gramen pratenſe, panicula duriore laxa, unam partem ſpectante. *Raii Syn.* 413. *t.* 19. *f.* 1.
β. Feſtuca dumetorum. *Linn. Sp. Pl.* 109. *With.* 154.

A COMMON graſs every where in paſtures, meadows, and waſte ground, flowering about midſummer.

Root fibrous, perennial. Herbage of a full darkiſh green. Straws a foot or more in height, erect, leafy. Leaves upright, roughiſh: the lower ones ſlender, rigid, acute, compreſſed, ſtriated, their baſe completely ſheathing the ſtraw, with ſcarcely any perceptible ſtipula. Upper leaves broader and flat. Panicle erect, a little zigzag, alternately branched, the branches all leaning one way, the lower ones ſubdivided and moſt ſpreading. Flower-ſtalks all ſharply angular, and rough. Spikelets at firſt cylindrical, but by the florets ſpreading they become flattened, often reddiſh. Calyx of two unequal, carinated, ſharp-pointed huſks. Florets from 4 to 6, the uppermoſt generally abortive, all fixed (a little remotely) to an angular zigzag ſtalk. Outer huſk of the corolla ſtrongly awned, the inner one ſmaller, more delicate and beardleſs. The angles of both are minutely ciliated, or downy; and ſometimes the outer huſk, as well as the calyx, is all over clothed with ſoft pubeſcence, which makes the character of Linnæus's F. *dumetorum*; nor can we, in his own ſpecimens, find any other mark than this, which is a variable one, to diſtinguiſh theſe two ſuppoſed ſpecies. Indeed, his ſpecimens of F. *duriuſcula* are ſome of them downy. The ſwelling in the ſtraw, juſt above the joints, deſcribed in his F. *dumetorum*, ſeems an accidental diſeaſe. What Linnæus calls a *nectarium* in theſe and moſt other graſſes, is a white cloven membrane cloſe to the germen.

The intelligent Mr. Swayne mentions this as a valuable graſs, ſpringing early, being acceptable to all kinds of cattle, growing in moſt good meadows and paſtures, and yielding a good crop.

G.R. III.
BRITISH MUSEUM

May 1. 1790 Published by J. Sowerby London.

BROMUS erectus.

Upright Brome-graſs.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves. *Spikelet* oblong, ſomewhat cylindrical, 2-ranked. *Awn* from below the top. *Inner huſk* fringed.

SPEC. CHAR. Panicle erect, a little branched. Florets numerous, ſlender. Radical leaves very narrow, fringed with white ſcattered hairs.

SYN. Bromus erectus. *Hudſ.* 49. *With.* 160. *Sibth.* 47. *Relh. Suppl.* 2. 8.

B. agreſtis. *Allion. Ped. V.* 2. 249.

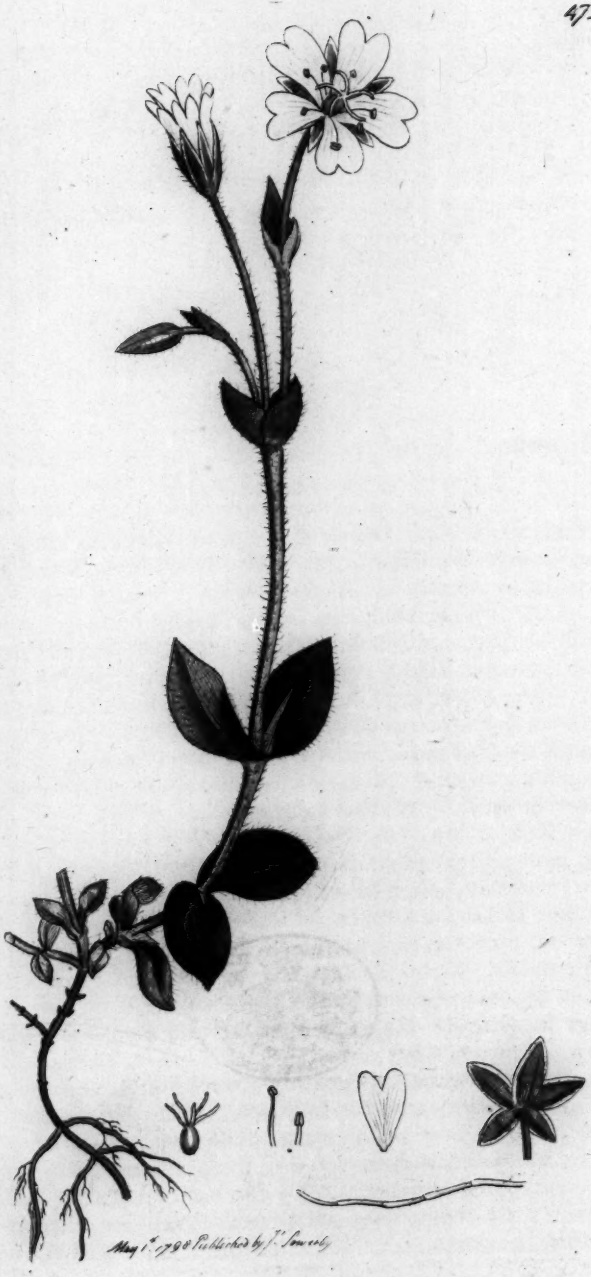
B. perennis. *Villars Dauph. V.* 2. 122.

Feſtuca avenacea ſterilis, ſpicis erectis. *Raii Syn. ed.* 2. 261. *ed.* 3. 413. the ſynonyms erroneous.

THIS graſs prefers a ſand on a chalky ſoil. Mr. Crowe obſerved it at Holkham, Norfolk. The Rev. Mr. Hemſted ſent this ſpecimen from Cambridgeſhire. It was firſt found by Sherard, near Oxford, from whom (through Bobart) it became known to Ray, as we find by the Sherardian Herbarium at Oxford, where, alſo, by the favour of the preſent liberal and ſcientific profeſſor, Dr. Williams, I have learned to decypher the ſynonyms of this whole genus, which have not been underſtood by Dillenius, nor any ſubſequent author, even Linnæus having lent his hand to the almoſt inextricable confuſion.

Root perennial, by which this *Bromus* differs from *arvenſis* with which it has been confounded. Straw 2 or 3 feet high, leafy, upright, jointed, ſometimes a little downy. Radical leaves numerous, harſh, upright, narrow, fringed unequally with long white ſcattered hairs, pointing upwards. The ſtem-leaves are much broader, and have fewer or none of theſe hairs. Panicle erect, as are all its branches, moſt of which are ſimple, one or two only being ſometimes branched; all are rough, various in length. Glumes compreſſed, carinated, purpliſh, ſhining, ſometimes very downy, ſometimes naked, but with a roughiſh keel and awn, which laſt, though of courſe a continuation of the keel, actually ſeparates from the glume a little below its membranous ſummit. The inner valve of the corolla is finely fringed, though leſs conſpicuouſly than in moſt *Bromi*, at leaſt the annual ones. The calyx contains from 7 to 9 or more florets, being in that reſpect very various. Awn ſhorter than the huſks. Antheræ of a fine ſaffron colour. Vaillant has well figured this graſs, *t.* 18. *f.* 2; but Moriſon's *ſect.* 8. *t.* 7. *f.* 13, however like it, is done from another ſpecies.

G.R. III.
BRITISH MUSEUM



May 1st. 1798 Published by J. Sowerby

CERASTIUM alpinum.

Alpine Chickweed.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* cloven. *Capſule* of one cell, burſting at the top.

SPEC. CHAR. Leaves elliptical, naked, or clothed with long hairs. Panicle forked, of few flowers, furniſhed with bracteæ. Capſule oblong, curved.

SYN. Ceraſtium alpinum. *Linn. Sp. Pl.* 628. *Hudſ.* 201. *With.* 434. *Fl. Dan. t.* 6.
C. latifolium. *Lightf.* 242. *t.* 10.
Alſines Myoſotis facie, Lychnis Alpina flore amplo niveo repens. *Raii Syn.* 349. *t.* 15. *f.* 2.

FEW of our Britiſh plants have been leſs underſtood than *Ceraſtium alpinum*, and *latifolium*. We have lately received freſh wild ſpecimens of both from Mr. Griffith of Garn, and others from Mr. Mackay of Edinburgh, and, finding them perfectly diſtinct, have endeavoured to aſcertain their differences and ſynonyms.

The C. *alpinum* has a creeping perennial root, forming tufts of leafy ſtems, branching from the baſe, round, erect, from 3 to 5 inches high, ſimple upwards, but terminating generally in a ſort of forked panicle of ſeveral flowers; in poor weak branches or ſtems, the flower is ſolitary. Leaves varying in ſhape and breadth, but always more or leſs elliptical, a little pointed, oppoſite of courſe, and ſeſſile. The herb is ſometimes quite ſmooth, ſometimes clothed with white hairs, which are long, ſilky, pointing upwards, jointed like a *Conferva*, with longiſh joints. Lightfoot has well figured it in its moſt hairy ſtate, though he miſtook it (as Dr. Withering juſtly obſerves) for C. *latifolium*. I have gathered it on Ben Lomond, exactly like that figure; and it being then taken for the *latifolium*, Mr. Woodward's deſcription, made from my ſpecimens, is by miſtake referred by Dr. Withering to that ſpecies. Dillenius's figure in Ray's Synopſis gives a totally wrong idea of the pubeſcence, which is there repreſented very ſhort. The original Linnæan ſpecimen is quite ſmooth, and we have ſeen ſuch from Wales, though generally the plant is more or leſs hairy. The flower-ſtalks are naturally 2, 3, or more, forming a forked panicle, and each of them is accompanied by a pair of lanceolate bracteæ. The flowers are large, white, and handſome; the calyx edged with a membrane, ſhorter than the petals. Stamina all perfect. Capſule, as it ripens, lengthened out into a curved horn. This plant flowers from the end of May to Auguſt.

G.R. III.
BRITISH MUSEUM

May 1, 1798 Published by J. Sowerby London

CERASTIUM latifolium.

Broad-leaved rough Chickweed.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-leaved. *Petals* cloven. *Capſule* of one cell, burſting at the top.

SPEC. CHAR. Leaves elliptical, clothed with ſhort ſpreading briſtles. Flower-ſtalks terminal, ſimple, moſtly ſolitary. Capſule oval.

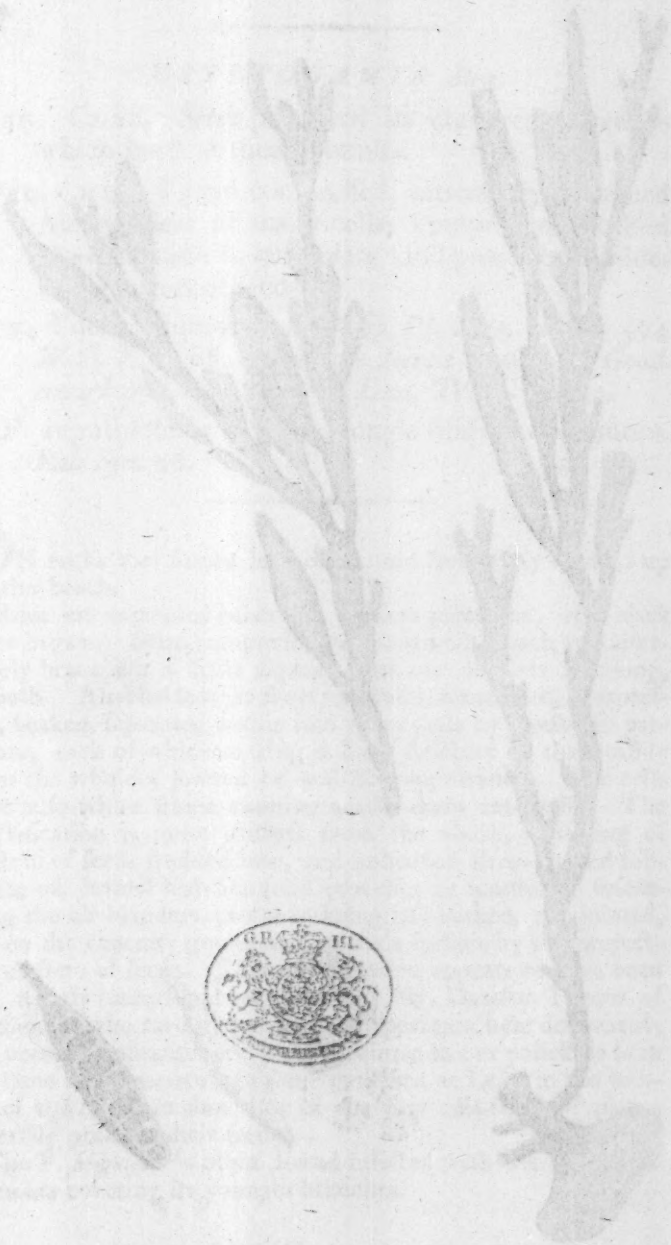
SYN. Ceraſtium latifolium. *Linn. Sp. Pl.* 629. *Hudſ.* 202. *With.* 434. *Jacq. Coll. V.* 1. 256. *t.* 20.

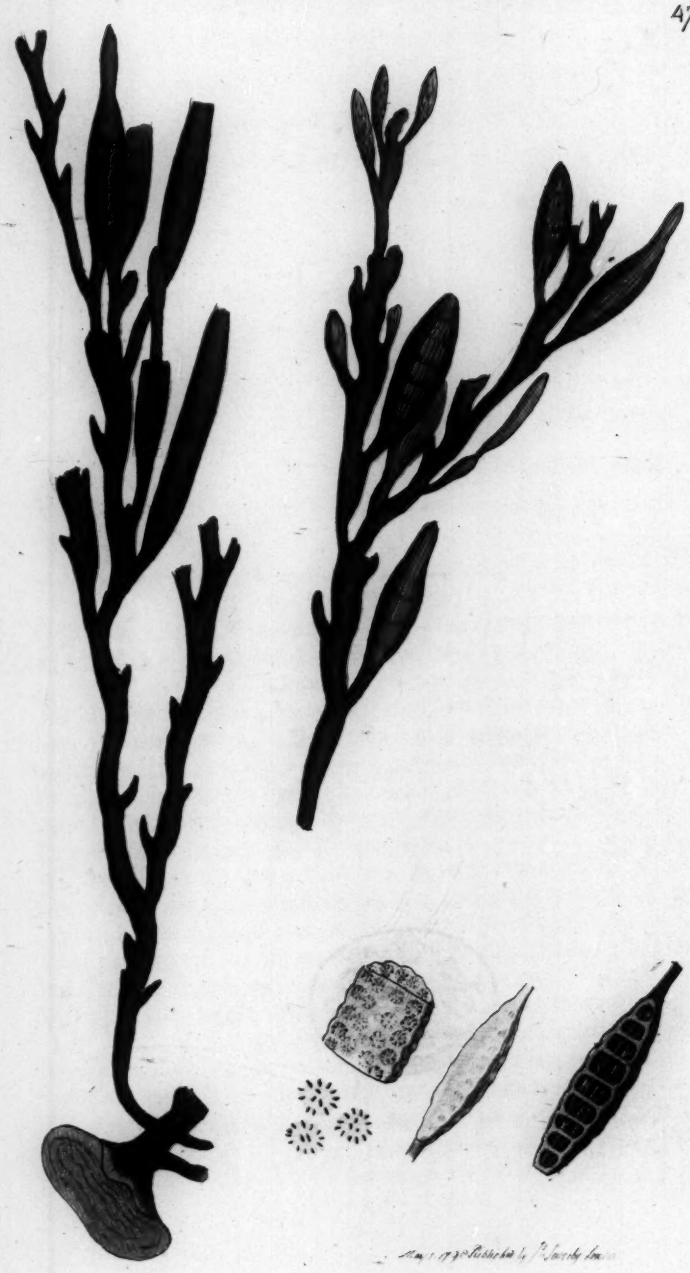
C. tomentoſum. *Hudſ. ed.* 1. 176.

Alſine Myoſotis lanuginoſa Alpina grandiflora. *Raii Syn.* 349.

CERASTIUM latifolium was ſent from Wales and Scotland along with C. *alpinum*, already deſcribed under *t.* 472: it flowers at the ſame time, and is perennial.

The ſtems form tufts, but are ſhorter and more thickly ſet with leaves than in that ſpecies; the leaves are broader and more obtuſe, clothed (*conſtantly* as far as we have obſerved) with numerous ſhort rigid ſpreading briſtly hairs, various in poſition and direction, making a harſh kind of covering, quite different from the ſilky hairs of C. *alpinum*. They are alſo in general more thickly jointed. The flower-ſtalks are terminal, moſtly ſolitary, ſimple, often as long as the whole ſtem, clothed with glandular ſpreading hairs, and frequently deſtitute of bracteæ. The flowers differ but little from that ſpecies. It appears that the ſtem is at length protruded beyond the inſertion of the flower-ſtalk, and may occaſionally bear an autumnal flower, when the firſt has ripened its ſeed. The capſule is oval, and is not curved, ſhorter than that of C. *alpinum*.—We preſume there is no doubt of this being the plant of Ray as above quoted, though we have ſeen no original ſpecimens. It uſed to be referred, from Mr. Hudſon's error, to the *tomentoſum* of Linnæus, from which it differs widely.





FUCUS ſiliquoſus.

Podded Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in cluſtered tubercles, which burſt at their ſummits.

SPEC. CHAR. Frond compreſſed, alternately branched. Air-bladders of many cells, compreſſed, beaked. Fructification in lanceolate ſolid proceſſes, ſtudded with cluſters of ſeeds.

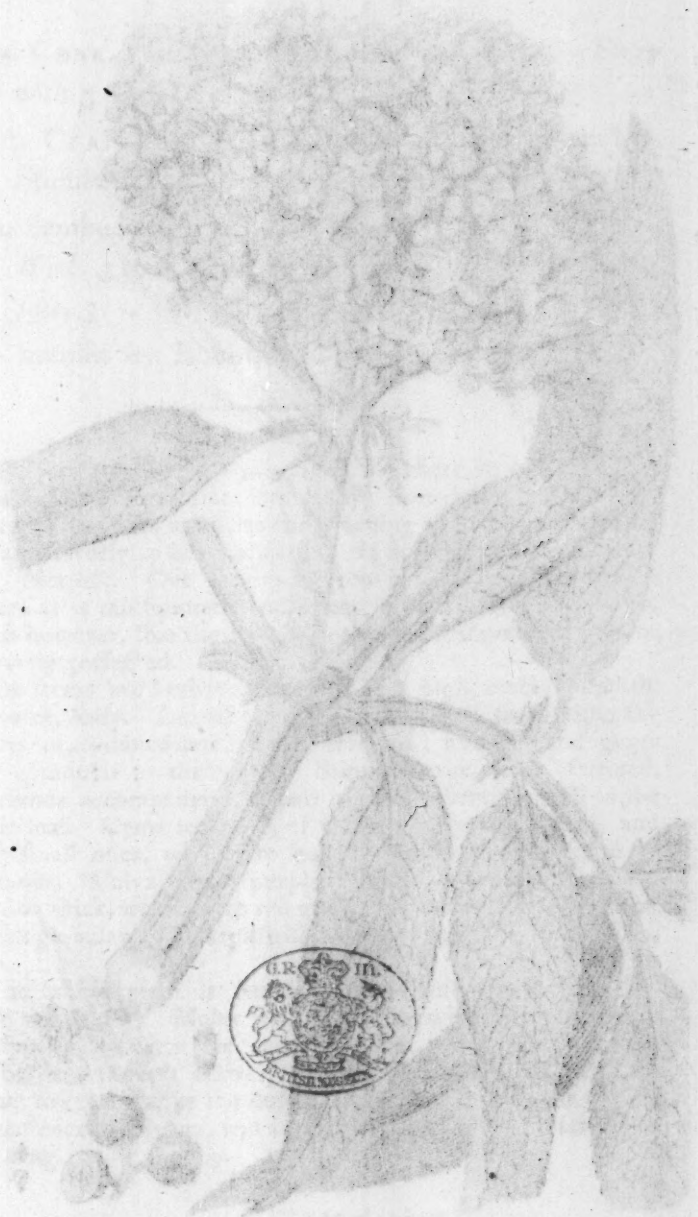
SYN. Fucus ſiliquoſus. *Linn. Sp. Pl.* 1629. *Hudſ.* 574. *With. V.* 4. 88. *Stackhouſe Nereis Brit. t.* 5. *Goodenough and Woodward in Linn. Tr. V.* 3. 124.

F. anguſtifolius, veſiculis longis ſiliquarum æmulis. *Raii Syn.* 48.

ON rocks and ſtones in the ſea, and frequently thrown up on the beach.

Root an expanded tubercle. Whole plant flat, of a dark olive brown. Stem compreſſed, without a rib, much and alternately branched, a little zigzag, from one to four feet long, ſmooth. Air-bladders on ſhort footſtalks, lanceolate, compreſſed, beaked, ſeparated within into many cells by tranſverſe partitions, each of which making a little ſtricture on the outſide gives the whole a jointed or pod-like appearance. The cells have alſo white fibres running acroſs them internally. The fructification is quite diſtinct from the above, conſiſting of cluſters of ſeeds ſtudded into, and imbedded through the ſubſtance of, ſeveral leaf-like ſolid proceſſes on footſtalks, reſembling the air-bladders except in being leſs beaked, not jointed, but on the contrary granulated on their ſurface by the projecting cluſters of ſeeds. This fructification appears to have been firſt rightly underſtood very lately by Mr. Dawſon Turner of Yarmouth, who favoured us with the ſpecimen here delineated; but upon examination every old ſpecimen in our poſſeſſion is in the ſame ſtate, particularly ſome gathered at Leith in the winter of 1781, for in that time of the year this tribe of plants generally produce their ſeeds.

The F. *ſiliquoſus* is often found infeſted with the *Sertularia geniculata* covering its younger branches.


G.R. III.

SAMBUCUS Ebulus.

Dwarf Elder, or Danewort.

PENTANDRIA Trigynia.

GEN. CHAR. *Cal.* in 5 ſegments. *Cor.* 5-cleft. *Berry* with 3 ſeeds.

SPEC. CHAR. Cymes with three principal branches. Stipulæ leafy. Stem herbaceous.

SYN. Sambucus Ebulus. *Linn. Sp. Pl.* 385. *Hudſ.* 130. *With.* 316. *Relh.* 127. *Sibth.* 104. *Curt. Lond. faſc.* 3. *t.* 18.

S. humilis ſeu Ebulus. *Raii Syn.* 461.

THE Dwarf Elder grows here and there in waſte ground throughout Britain, not commonly, though in great plenty wherever it occurs at all, as the creeping roots ſpread very far, and are ſcarcely to be eradicated. It is plentiful at Honingham, Norfolk. Our ſpecimen grew in Lambeth Marſh. It flowers after midſummer, and ripens its berries late in autumn, which however, like the fruit of other creeping-rooted plants, are rarely perfected.

The ſtems are herbaceous, three feet high, erect, roundiſh, furrowed, leafy. Leaves pinnate, dark-green, ſmoothiſh, the leaflets ovato-lanceolate, acute, ſerrated; unequal and generally glandular at their baſe. Stipulæ large, leafy, ſerrated, ſometimes accompanying a pair of the leaflets as well as the whole leaf. Cyme terminal, of three principal branches, and many ſmall ones, which are hairy. All the flowers ſtand on footſtalks. Calyx ſmall, purple. Petals of a dull blood-red. Stamina thick, white, with red antheræ, whoſe lobes are diſtant. Berries globular, of a purpliſh black, with three, ſometimes four, ſeeds.

The whole plant is fœtid, and violently purgative. No cattle will eat it. Moles will not come where the leaves of this ſpecies, or even the common Elder, are laid. A rob of the berries, though actively cathartic, may be uſed with tolerable ſafety as far as the doſe of an ounce; but it has the inconveniences of Senna, and is in no reſpect to be preferred to that drug.

G.R. IV.
BRITISH MUSEUM

Sulzer 1790 Published by J. Swinton

SAMBUCUS nigra.

Common Elder.

PENTANDRIA Trigynia.

GEN. CHAR. *Cal.* in five ſegments. *Cor.* 5-cleft. *Berry* with 3 ſeeds.

SPEC. CHAR. Cymes with five principal branches. Leaflets ovate. Stem a tree.

SYN. Sambucus nigra. *Linn. Sp. Pl.* 385. *Hudſ.* 130. *With.* 316. *Relh.* 128. *Sibth.* 105. *Woodv. Med. Bot. t.* 78.

Sambucus. *Raii Syn.* 461.

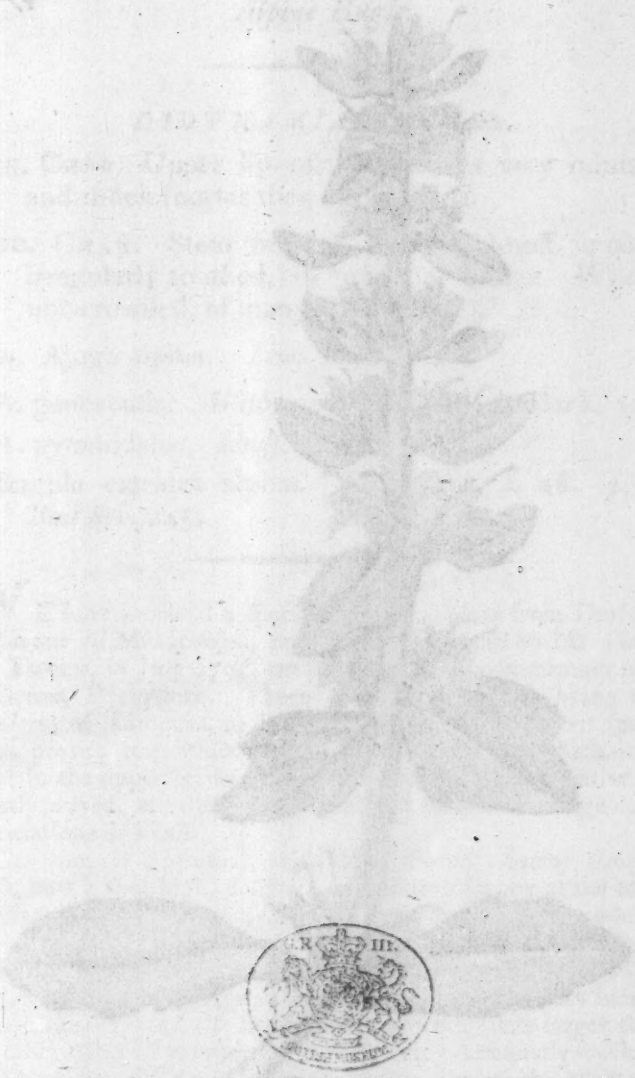
ABUNDANT every where in hedges and groves, flowering in June, and ripening its berries copiouſly in September.

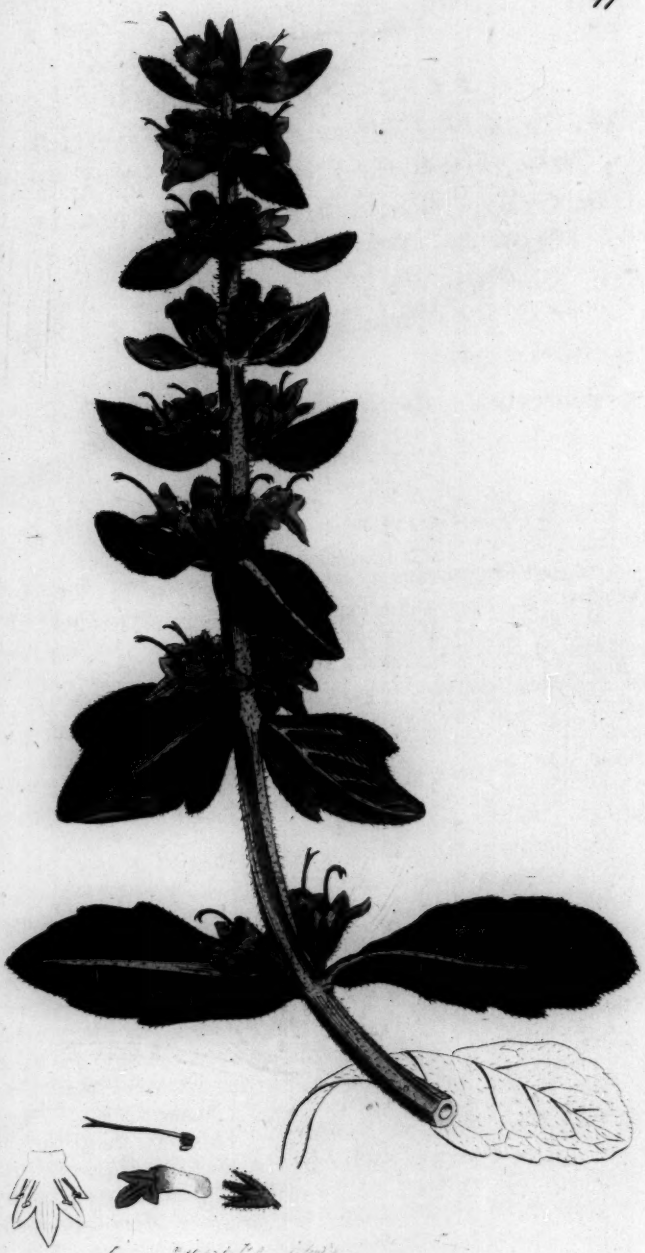
This ſpecies grows to a middle-ſized buſhy tree, with a ſmooth grey bark when young. The branches are oppoſite, leafy, of quick growth, and full of a light white pith, which is put to various uſes for which ſuch a ſubſtance is required. The pinnated leaves conſiſt of about 5 oval, pointed, ſerrated leaflets, nearly equal at their baſe, and have no ſtipulæ, or very ſmall ones. Cymes terminal, ſolitary, of 5 principal branches, and many ſmall ones, and ſome of the flowers are ſeſſile. Flowers cream-coloured, with a faint ſmell, eſpecially when dried. Berries globular, purpliſh black.

This tree is as it were a whole magazine of phyſic to ruſtic practitioners, nor is it quite neglected by more regular ones. Ointments are made of the green inner bark, which is alſo a ſtrong purgative: the dried flowers infuſed in water are uſed in fomentations, or as tea, though in the latter capacity they are weakening to the nerves: the berries are boiled into a rob, which is really uſeful in ſore throats and catarrhs, and acts as a gentle laxative in febrile diſorders. The leaves laid into the ſubterraneous paths of the mole drive it away; and an infuſion of them is extremely uſeful for curious gardeners to ſprinkle over the buds of ſuch flowers as they wiſh to preſerve from minute caterpillars, as few inſects can bear the Elder. The *Phalæna Sambucaria*, however, feeds on this plant, and the colouring of its delicate wings ſeems to imitate the bloſſoms.

SAMBUCUS nigra.

Common Elder.





July 1790 Published by J. Sowerby

AJUGA alpina.

Alpine Bugle.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. Upper lip of the *Corolla* very minute, and much ſhorter than the ſtamina.

SPEC. CHAR. Stem ſimple. Leaves almoſt ſmooth, irregularly toothed, all nearly of a ſize. Whorls not crowded, of many flowers.

SYN. Ajuga alpina. *Linn. Mant.* 80.

A. genevenſis. *With.* 516. *Scholler Fl. Barb.* 135.

A. pyramidalis. *Hudſ.* 248.

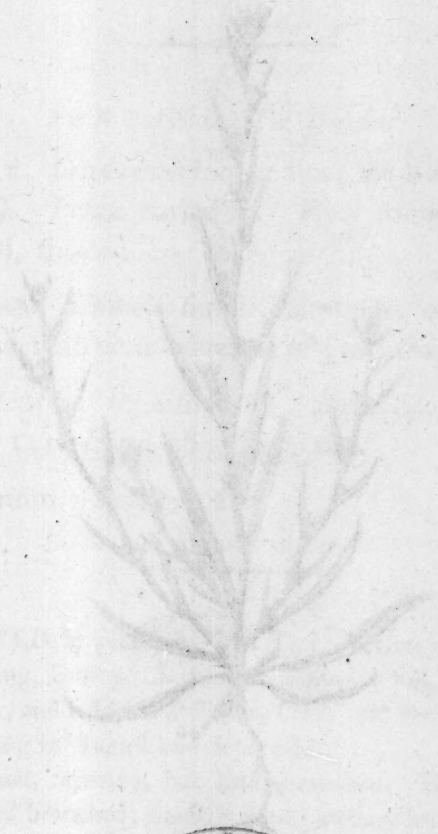
Bugula cærulea alpina. *Pluk. Phyt. t.* 18. *f.* 3. *Raii Syn.* 245.

WE have received a ſpecimen of this plant from Durham by favour of Mr. Robſon, and another gathered by Mr. Dawſon Turner, in July 1795, on the ſummit of a mountain near Caſtleton, Derbyſhire. There is no doubt of its being the A. *alpina* of Linnæus, as his deſcription and numerous ſpecimens prove; notwithſtanding great variations to which it is liable in the upper leaves, which are ſometimes quite entire, or ſlightly waved, at other times furniſhed with a few large deep indentations or lobes.

The root is perennial, with long fibres. Stems ſimple, erect, near a foot high, deſtitute of running ſcyons at the baſe, angular, ſlightly hairy, leafy; the pairs of leaves and the whorls are rather diſtant, by no means crowded into a pyramidal form as in A. *pyramidalis*, nor are the radical leaves (as in that ſpecies) 3 or 4 times as large as thoſe on the ſtem, and very hairy; but, on the contrary, the lower leaves are but little larger than the others, and all very nearly ſmooth, veiny, unequally toothed. The bracteæ are ſometimes quite entire, ſometimes toothed; the uppermoſt only tinged with purple; whereas in A. *pyramidalis*, they are all reddiſh. Flowers from 10 to 20 in each whorl. Calyx chiefly hairy at the teeth. Flowers pale, ſtreaked with deeper blue.—The real A. *genevenſis* of Linnæus, in his herbarium, is very woolly, and more denſely ſpiked than our plant, with leaves rather crenate than toothed. Yet we are by no means certain of its being more than a variety. Whether the *pyramidalis* be alſo a Britiſh plant, we have not yet ſatisfactorily determined.

AJUGA alpina.

Alpine Bugle.



G.R. III.

Sept. 1 1798 Published by J. Sowerby London.

BUPLEURUM tenuiſſimum.

Slender Thorough-wax, or Hare's-ear.

PENTANDRIA Digynia.

GEN. CHAR. *Involucrum* longer than the umbels, five-leaved. *Petals* curled in. *Fruit* roundiſh, compreſſed, ſtriated.

SPEC. CHAR. Umbels ſimple, alternate, of about 3 flowers, with an involucrum of 5 awl-ſhaped leaves.

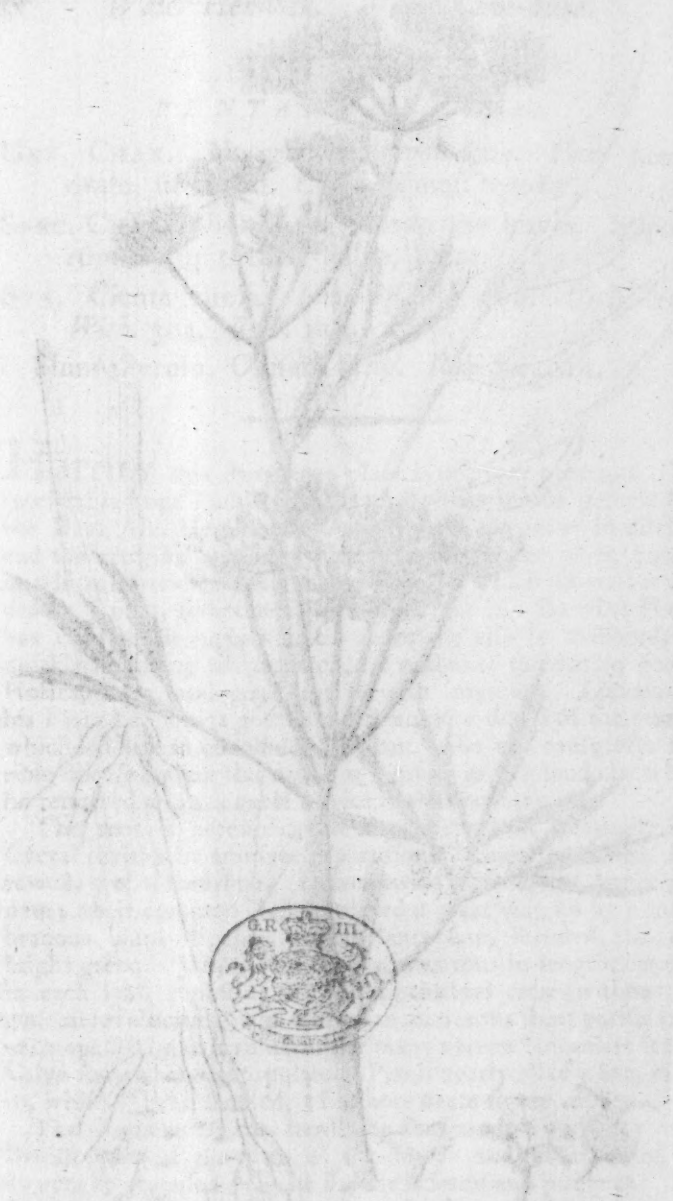
SYN. Bupleurum tenuiſſimum. *Linn. Sp. Pl.* 343. *Hudſ.* 111. *With.* 285. *Relh.* 109.

B. minimum. *Raii Syn.* 221.

GATHERED in plenty by Mr. T. F. Forſter on the ſhore near Worthing, Suſſex. It prefers a muddy ſoil, overflowed by ſalt water, and is found at Lynn, Cley, and Holkham, Norfolk, flowering in Auguſt and September.

Root annual, tapering, but little branched. Herb ſlender, rigid, ſmooth, branched, erect. Stems zigzag, leafy. Leaves lanceolate, narrow, pointed, entire, alternate, tapering at the baſe. Umbels axillary, ſimple, ſometimes arranged in a ſpike; each of them of about 3 ſmall greeniſh yellow flowers, ſurrounded by an involucrum, much longer than themſelves, of five lanceolate, pointed, ribbed, nearly equal leaves. The ſeeds are hemiſphærical, compreſſed, angular, and rugged.

The whole plant has a pungent diſagreeable taſte and ſmell, and is of an acrid quality. We do not know of its being applied to any uſe.


G.R. III.

CICUTA viroſa.

Water Hemlock. Water Cow-bane.

PENTANDRIA Digynia.

GEN. CHAR. No general *Involucrum*. *Fruit* nearly ovate, furrowed. *Corolla* almoſt regular.

SPEC. CHAR. Umbels oppoſite to the leaves. Stipulæ running up the leaf-ſtalks, blunt.

SYN. Cicuta viroſa. *Linn. Sp. Pl.* 366. *Hudſ.* 122. *With.* 304. *Relh.* 119.

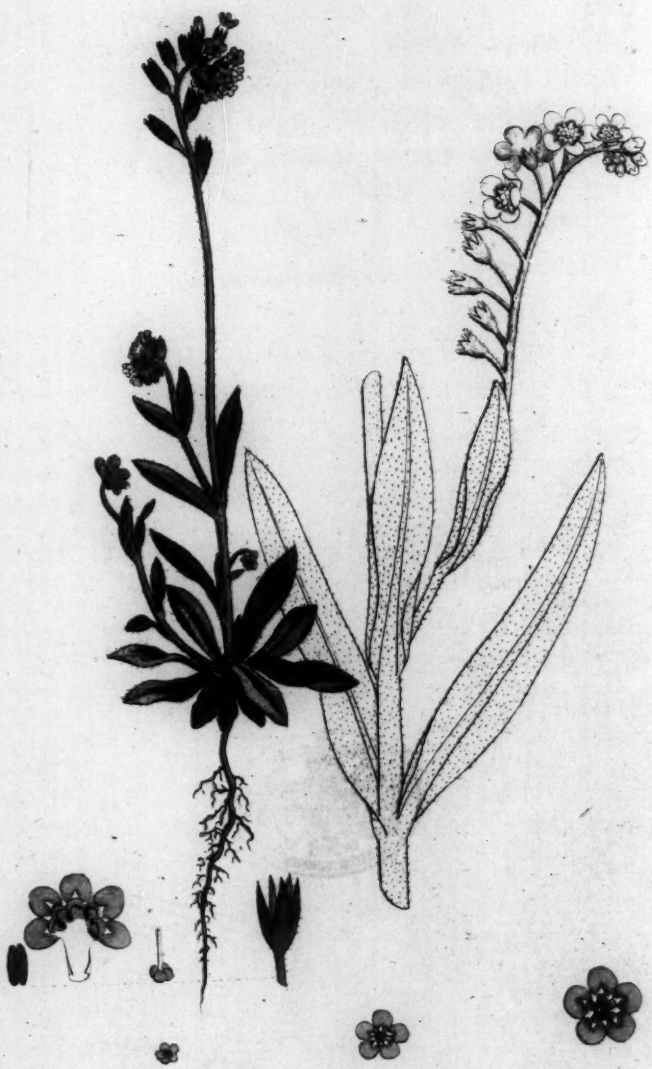
Sium alterum, Oluſatri facie. *Raii Syn.* 212.

HAPPILY this dangerous plant is not very common. We received it from Tuddenham-heath, where it was gathered by the Rev. Mr. Hemſted in Auguſt laſt. It grows in ditches, and the margins of rivers, always under water when young, in which ſituation cows and bullocks, to which animals it is a deadly poiſon, ſometimes by miſtake eat it. By what Haller has collected it appears to be poiſonous alſo to mankind, by quickly inflaming the ſtomach, as well as to the canine genus. Horſes, hogs, and goats eat it with impunity. Linnæus in his Flora Lapponica gives a moſt exquiſite detail of the reaſons which led him to conclude this plant to be the cauſe of a terrible diſeaſe among the cattle at Tornoa in Lapland, by which he rendered an invaluable ſervice to that country.

The root is perennial, tuberous, ſeparated internally into ſeveral cavities by tranſverſe partitions. Stem branched, furrowed, 3 or 4 feet high. Leaves twice ternate, the larger pinnate; their common ſtalk bordered a great way up by a membranous blunt ſtipula; leaflets lanceolate, ſerrated, ſmooth, bright green. Umbels on footſtalks various in length, oppoſite to each leaf, conſiſting of ſeveral principal rays (without any general involucrum), and ſtill more numerous ſhort partial rays, encompaſſed by an involucrum of many narrow lanceolate leaves. Calyx ſomewhat campanulate. Petals nearly all of a ſize, rolled in, white. Fruit ſwelled, of a ſhort ovate figure, ribbed.

The *Cicuta viroſa* can hardly be confounded with any other Britiſh plant, if the form of the leaves and ſituation of the flowers be attended to. Its flavour is fœtid and pungent. If it ſhould unfortunately be taken into the ſtomach, a ſpeedy emetic is the beſt remedy, or a doſe of oil.

G.R.
III.
BRITISH MUSEUM



July 1st 1836 Published by S. Curtis, Lambeth.

MYOSOTIS ſcorpioides.

Mouſe-ear Scorpion-graſs.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* ſalver-ſhaped, 5-cleft, ſlightly notched; its orifice cloſed with concave valves.

SPEC. CHAR. Seeds ſmooth. Leaves elliptic-lanceolate. Cluſters of many flowers, without bracteæ.

SYN. Myoſotis ſcorpioides. *Linn. Sp. Pl.* 188. *Hudſ.* 78. *Relh.* 75.

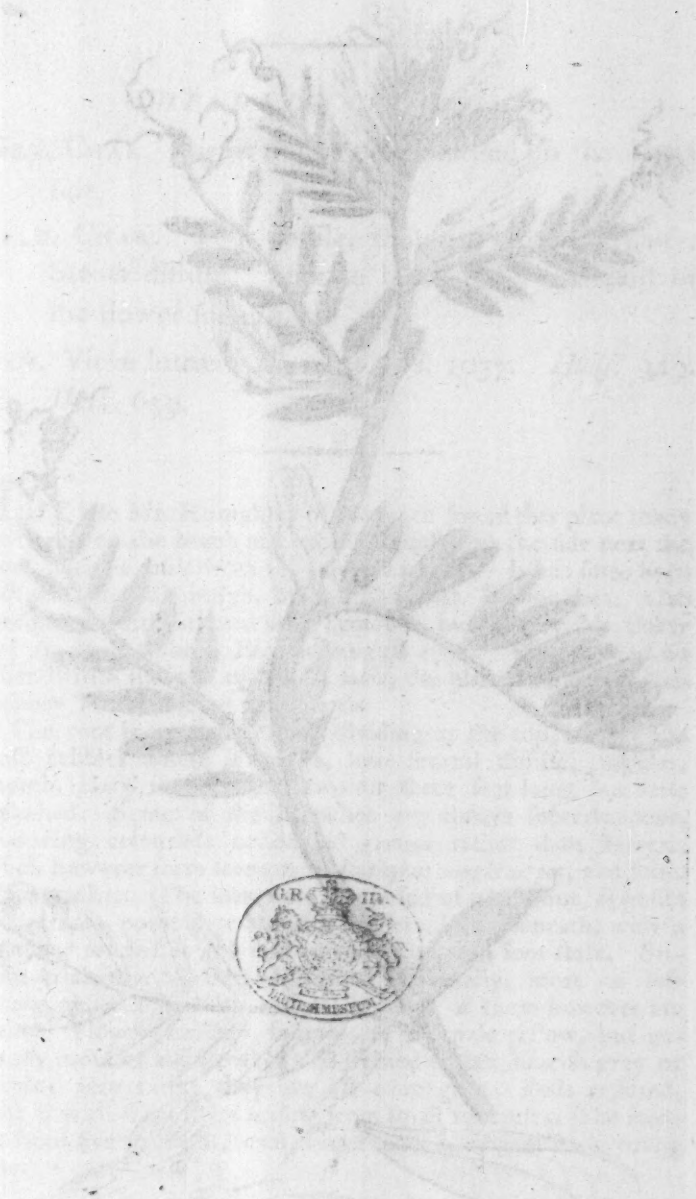
M. arvenſis. *Sibth.* 68. *With.* 225.

M. ſcorpioides hirſuta. *Raii Syn.* 229.

β M. ſcorpioides paluſtris. *Linn. Sp. Pl.* 188. *Curt. Lond. faſc.* 3. *t.* 13. *Raii Syn.* 229.

M. paluſtris. *With.* 225. *Relh.* 76. *Sibth.* 68.

THE ſmaller variety of this plant, repreſented entire in our figure, is common on dry ſandy or gravelly hillocks, generally near water upon heaths; it is alſo frequent in fallow fields: and a ſtill ſmaller variety, with flowers entirely yellow, grows on walls. It is annual, flowering throughout the ſummer. The large variety, of which we exhibit only a branch, Mr. Curtis having given the whole plant, is ſaid to be perennial; a matter we have never been able to verify, and are inclined to doubt. It grows in ditches and clear ſprings, to which its enamelled blue flowers, generally pink in the bud, are a diſtinguiſhed ornament. There is alſo a variety much like this aquatic one, but more hairy, figured in Ray's Syn. by Dillenius, *t.* 9. We are perſuaded theſe make but one ſpecies. No plant varies more palpably in ſize and hairineſs. The teeth of the calyx in the aquatic kind are indeed generally ſhorter and blunter, which is made a ſpecific diſtinction by ſeveral ingenious authors quoted above, and has almoſt ſtaggered us: as to hairineſs, it varies, like every other part. The ſhape of the leaves is pretty conſtant. Linnæus characterizes them as callous at the tip, which is not very generally perceptible. Neither are the lobes of the corolla ſo evidently or conſtantly notched as his generic definition implies.


G.R. III.
BRITISH MUSEUM

VICIA lutea.

Rough-podded Yellow Vetch.

DIADELPHIA Decandria.

GEN. CHAR. *Stigma* tranſverſely bearded on the lower ſide.

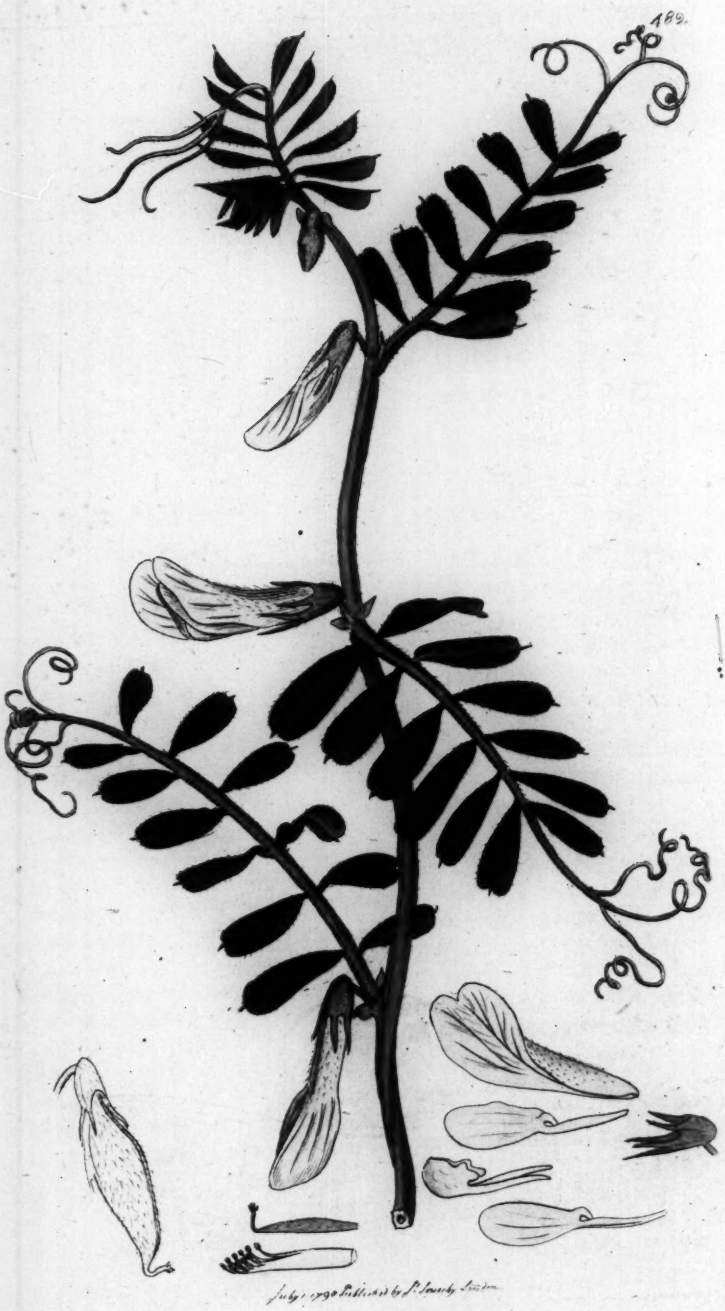
SPEC. CHAR. Pods ſeſſile, ſolitary, reflexed, hairy. Stems diffuſe. Stipulæ blood-red. Standard of the flower ſmooth.

SYN. Viciæ luteæ. *Linn. Sp. Pl.* 1037. *Hudſ.* 319. *With.* 639.

THE late Mr. Humphrey of Norwich found this plant many years ago on the beach at Orford, Suffolk, on the ſide next the river, about a mile from the haven's mouth. It has ſince been met with at Aldborough, by the Rev. Mr. Burroughes. Our ſpecimens were gathered at Weymouth, by the Rev. Mr. Baker and A. B. Lambert, Eſq. in Auguſt 1795. We know of no other Britiſh ſtations of the V. *lutea*, the plant found on Glaſtonbury Tor hill being the *hybrida*.

The root is perennial, long, dividing at the top, among the looſe pebbles where it grows, into ſeveral diffuſe, angular, ſmooth, leafy ſtems, often two or three feet long, but little branched. Some of the branches are always ſubterraneous, producing colourleſs condenſed *gemmæ* rather than flowers, which however form ſeeds as in *Lathyrus amphicarpos*, and ſome other vetches. The leaves are compoſed of numerous, oppoſite or alternate, pointed or bluntiſh leaflets, hairy beneath, with a branched tendril at the end of their common foot-ſtalk. Stipulæ triangular, generally ſtained externally, more or leſs deeply, with a blackiſh red hue; ſome of them however are green. Flowers axillary, ſolitary, ſeſſile, pale yellow, but generally more or leſs ſtreaked and ſtained with a blueiſh grey or purple; very rarely they are all over grey. Pods reflexed, clothed with ſhort hairs ariſing from ſmall tubercles. The ſeeds are from five to eight, oval, bitter and aſtringent in a young ſtate.

G.R. III.


189.

VICIA hybrida.

Hairy-flowered Yellow Vetch.

DIADELPHIA Decandria.

GEN. CHAR. *Stigma* tranſverſely bearded on the lower ſide.

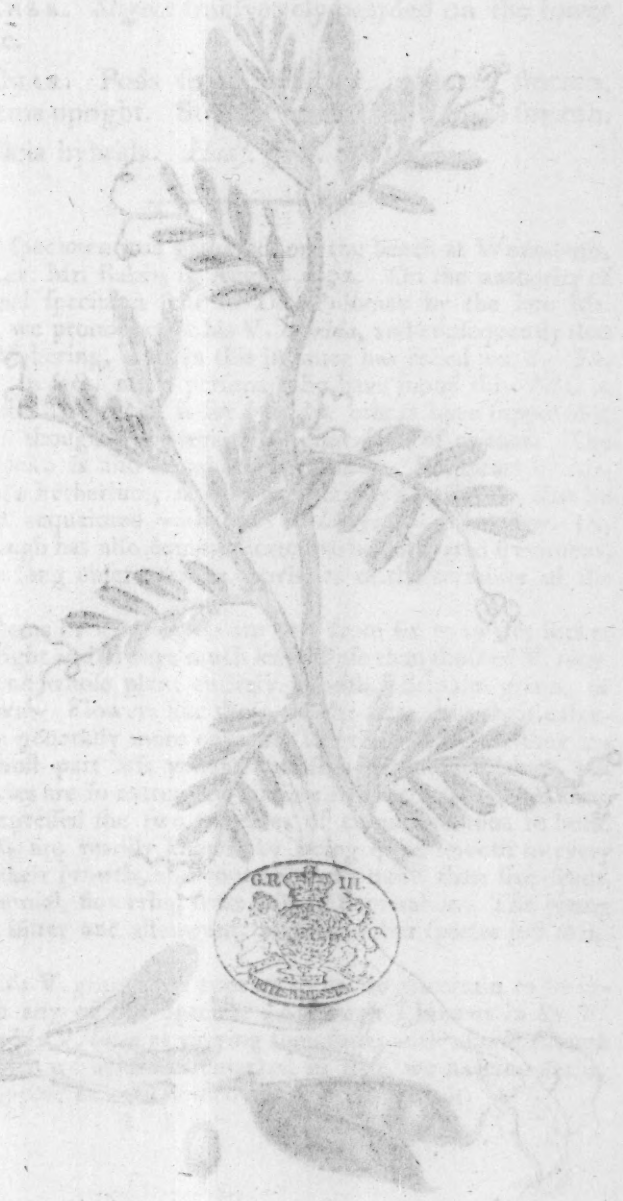
SPEC. CHAR. Pods ſeſſile, ſolitary, reflexed, hairy. Stipulæ green. Standard of the flower hairy. Leaflets emarginate.

SYN. Vicia hybrida. *Linn. Sp. Pl.* 1037. *Jacq. Hort. t.* 146.

V. luteo flore ſylveſtris. *Raii Syn.* 321.

GATHERED by A. B. Lambert, Eſq. in June 1797, on Glaſtonbury Tor hill, Somerſetſhire, as mentioned by Ray; for our ſpecimens prove the plant of Ray to be V. *hybrida*, and not *lutea* as Hudſon thought. Indeed it appears the laſt-mentioned author never knew the real *hybrida*, as it does not grow at Weymouth; and we have detected what he gathered there for this ſpecies to be another, hitherto nondeſcript, as will appear in the next page.

The plant now before us has generally taller and rather more upright ſtems than V. *lutea*, which it otherwiſe very nearly reſembles in habit and leading characters. The flowers are generally yellow, ſtreaked a little with pale purpliſh red; we know not that they ever vary to grey or purple. They are eſſentially characteriſed by the back of their ſtandard or *vexillum* being hairy. Another mark of this ſpecies is the ſtipulæ being entirely green. The leaflets vary greatly in ſhape, as in moſt of this tribe, but are always more obtuſe and emarginate than thoſe of V. *lutea*. As in that ſpecies, they are hairy, as well as the pods. The root is perennial.


G.R. III.

VICIA lævigata.

Smooth-podded Sea Vetch.

DIADELPHIA Decandria.

GEN. CHAR. *Stigma* tranſverſely bearded on the lower ſide.

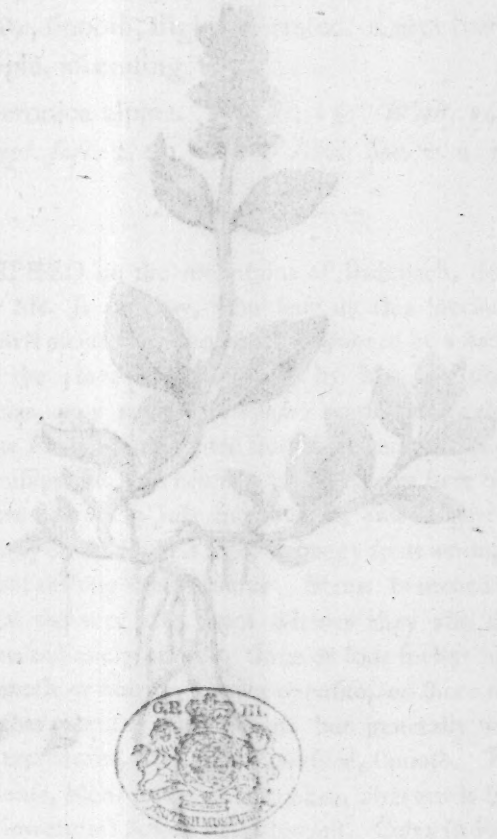
SPEC. CHAR. Pods ſeſſile, ſolitary, reflexed, ſmooth. Stems upright. Stipulæ greeniſh. Leaves ſmooth.

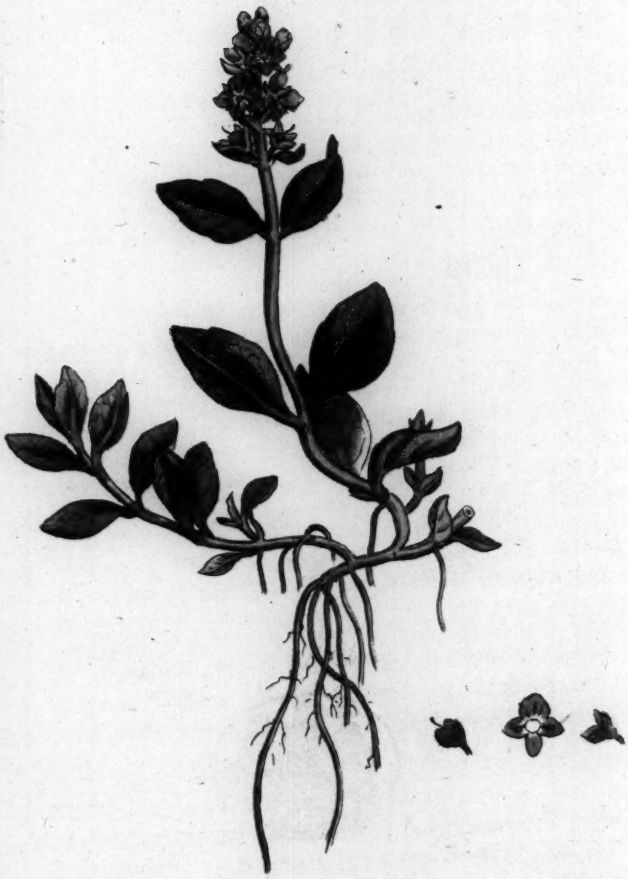
SYN. Vicia hybrida. *Hudſ.* 319. *With.* 639.

THIS ſpecimen was gathered on the beach at Weymouth, by the Rev. Mr. Baker, in Auguſt 1792. On the authority of an original ſpecimen ſent to Dr. Pulteney by the late Mr. Hudſon, we pronounce it his V. *hybrida*, and conſequently that of Dr. Withering, who in this inſtance has relied on the *Flo. Anglica*. In fact, many perſons who have found this *Vicia* at Weymouth have taken it for *hybrida*; others have ſuppoſed it *bithynica*; though it anſwers to the characters of neither. The true *bithynica* is alſo found at Weymouth. It appears by Mr. Lightfoot's herbarium, now in her Majeſty's poſſeſſion, that he was well acquainted with our V. *lævigata*. The Rev. Dr. Goodenough has alſo communicated to us cultivated ſpecimens, and from long obſervation is convinced of the certainty of the ſpecies.

The ſtems of V. *lævigata* are only from ſix to twelve inches long, upright and always much leſs diffuſe than thoſe of V. *lutea*. Leaves and whole plant entirely ſmooth. Stipulæ green, or pale brown. Flowers like thoſe of the *lutea*, but their calyx-teeth are generally more equal in length. In colour they are for the moſt part leſs yellow, and ſometimes quite blue; but both ſpecies are ſo extremely variable in that reſpect, we have rather expreſſed the two extremes of colour common to both. The pods are readily known by being quite ſmooth in every ſtage of their growth, and contain rarely more than five ſeeds. It is perennial, flowering from July to September. The young ſeeds are bitter and aſtringent, as in the other ſpecies juſt mentioned.

Scopoli's V. *grandiflora* appears to us too uncertain to be referred to any of our ſpecies. Although Linnæus in *Sp. Pl.* mentions his V. *lutea* as varying ſometimes with almoſt ſmooth pods, which we have not remarked in that, we have no authority to ſuppoſe he confounded our *lævigata* with it.





July 1, 1793. Published by J.t Sowerby London

VERONICA alpina.

Alpine Speedwell.

DIANDRIA Monogynia.

GEN. CHAR. *Cor.* inferior, of one petal, four-cleft; lower diviſion narroweſt. *Capſ.* two-celled.

SPEC. CHAR. Corymbus terminal. Leaves oppoſite, ovate, ſmooth, ſlightly ſerrated. Calyx hairy. Stem ſimple, aſcending.

SYN. Veronica alpina. *Sp. Pl.* 15. *With.* 14. *Dickſ. Crypt. faſc.* 2. 29. *Tr. of Linn. Soc. v.* 2. 287.

GATHERED on the mountains of Badenoch, Scotland, in 1794, by Mr. J. Mackay, who ſent us this ſpecimen. Mr. Dickſon firſt aſcertained the real V. *alpina* to be a native of Britain, and the plant ſo denominated by Mr. Lightfoot to be a new ſpecies, now named *humifuſa*; conſequently the deſcription in the *Flo. Scot.*, compiled from Linnæus's *Flora Lapponica*, is there miſapplied, and belongs to the ſpecies here before us.

V. *alpina* flowers in July and Auguſt, and is perennial. It is found only on the higheſt alps, in boggy ſpots among trickling rills. Root of long ſimple fibres. Stems branched and procumbent at the very baſe, from whence they alſo throw out roots, then obliquely upright, three or four inches high, leafy, round, ſmooth or hairy. Leaves oppoſite, on ſhort foot-ſtalks, ovate, rather obtuſe, often entire, but generally with a few diſperſed crenatures, dark green, poliſhed, ſmooth. Flowers in a ſhort, denſe, blunt ſpike or corymbus, afterwards lengthened out; the lowermoſt flower-ſtalks longeſt. Calyx in four, rather unequal, hairy and ciliated ſegments. All the hairs are finely jointed. Flowers bright blue, with a white tube. Capſule compreſſed, notched, hairy, tipped with the permanent ſtyle.

G.R. III.

Jul. 1792 Published by

LICHEN querneus.

Oak Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts. Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

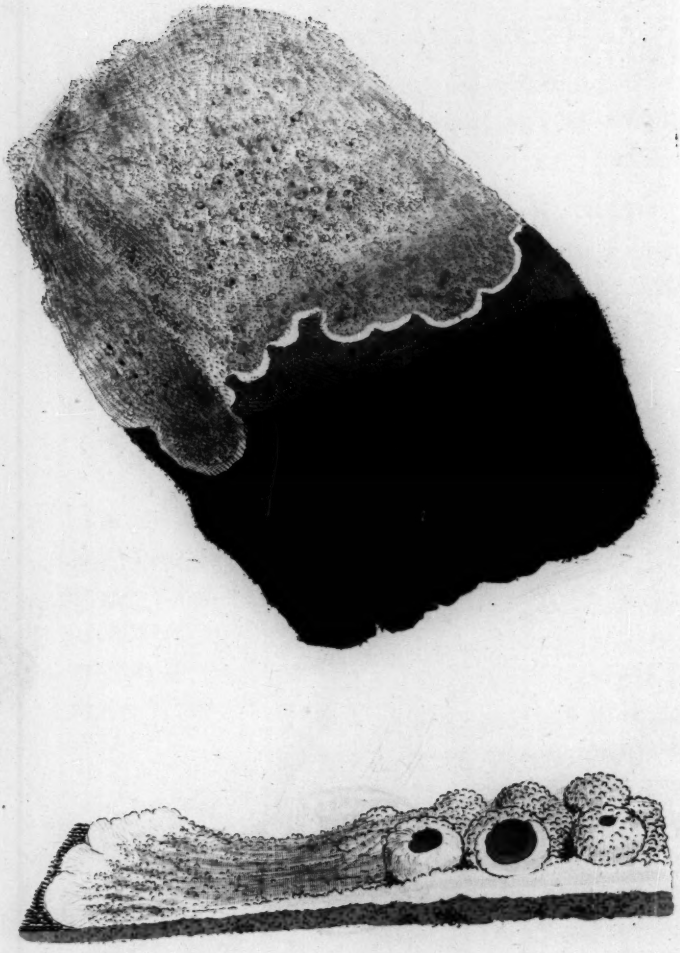
SPEC. CHAR. Leprous, browniſh pale yellow. Tubercles brown, convex, ſlightly immerſed in the cruſt.

SYN. Lichen querneus. *Dickſ. Crypt. faſc.* 1. 9. *t.* 2. *f.* 3. *With. v.* 4. 11. *Relh. Suppl.* 1. 22. *Sibth.* 319.

THIS Lichen is not unfrequent in the cleſts of the bark upon the trunks of old oaks, particularly in an expoſed ſituation. It ſpreads over the dead external angulated layers of bark, in the form of a dull ſulphur-coloured mealy cruſt of an inconſiderable thickneſs; and ſometimes, according to the remark of Mr. Dawſon Turner, it clothes other Lichens, and diſguiſes them ſo that they might be miſtaken for new ſpecies. The tubercles are minute, regular in ſhape and ſize, a little convex, of a dark dull brown, almoſt black when dry, without any perceptible border. They are chiefly to be found in moiſt weather, at any time of the year, but not very frequently.

This ſpecimen was ſent us by the Rev. Mr. Alderſon, from Norfolk, where the *Lichen querneus* was firſt diſcovered and characterized by Mr. Dickſon. It is ſomewhat a-kin to L. *coccineus*, ſee *t.* 223., and ſtill more to the *Lepra luteſcens* of Hoffmann, *Pl. Lichenoſæ*, *t.* 23. *f.* 1, 2. the ſhields of which when diſcovered may perhaps prove them to be one ſpecies. When young, this ſpecies has a narrow blackiſh border.

G.R. III
BRITISH MUSEUM



July 1 1790 Published by J.t Sowerby London

LICHEN Hæmatomma.

Bloody-ſpecked Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts. Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Cruſtaceous, white, mealy, with a fibrous border. Shields imbedded, ſcarlet, concave; when old, convex; their margin thick, white, elevated, mealy.

SYN. Lichen Hæmatomma. *Ehrh. Beiträge faſc.* 2. 157. *Gmel. Syſt. Nat. Linn. v.* 2. 1361.

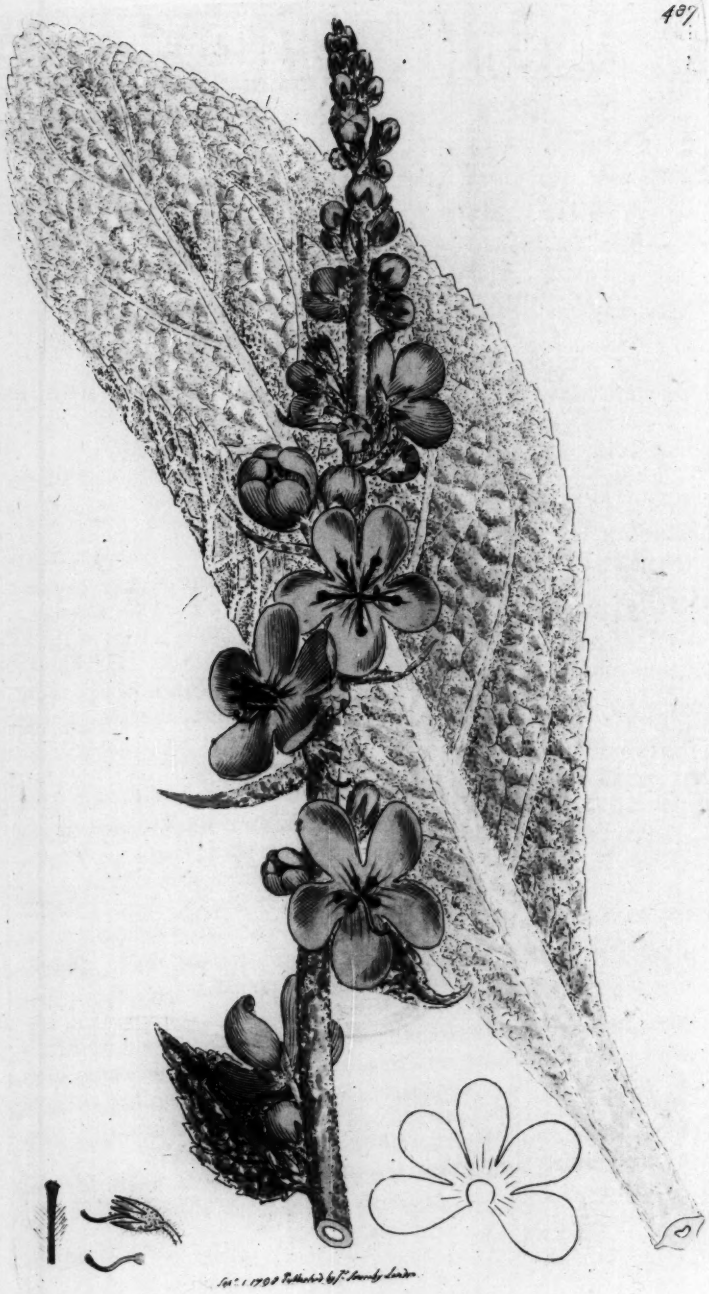
Verrucaria Hæmatomma. *Hoffm. Pl. Lich. t.* 11. *f.* 1.

FOUND, for the firſt time in this iſland, by Robert Stone and D. Turner, Eſqrs. on brick walls, at Gorleſtone, near Yarmouth, in conſiderable plenty.

The cruſt is of a greyiſh white, mealy, or minutely granulated, greeniſh within, ſpreading to a conſiderable extent, ſcarcely half a line in thickneſs, its border when young as white as ſnow, and compoſed of very fine parallel fibres. The ſhields are minute, imbedded in the cruſt, of a paleiſh vermilion hue, concave, encloſed in a very prominent thick overhanging margin, which is of the ſame colour and mealy ſubſtance as the cruſt. In proceſs of time they become more elevated, and of a darker hue.

At firſt ſight this *Lichen* appears like a powdery *Byſſus*, through whoſe ſubſtance minute points of the brick on which it grows, had, by accidental attrition, become viſible; but thoſe red points are on examination found to be beautiful little ſhields. We think there can be no doubt of its being the plant to which we have referred in Prof. Hoffman's exquiſite work, though the cruſt is there delineated more cracked and browner, with ſhields leſs regular, and more dark coloured than ours, being farther advanced in age. The deſcription, like all of this author, is accurate and characteriſtic.

G.R.



Jan.ʳ 1799 Published by Fᵗ Sowerby London

VERBASCUM pulverulentum.

Yellow hoary Mullein.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* wheel-ſhaped, a little irregular. *Capſ.* with 2 cells and 2 valves.

SPEC. CHAR. Leaves oblong-ovate, ſlightly ſerrated, mealy on both ſides. Stem round, panicled.

SYN. Verbaſcum pulverulentum. *Curt. Cat.- Saliſb. Prod.* 104.

V. pulverulentum, flore luteo parvo. *Raii Syn.* 287.

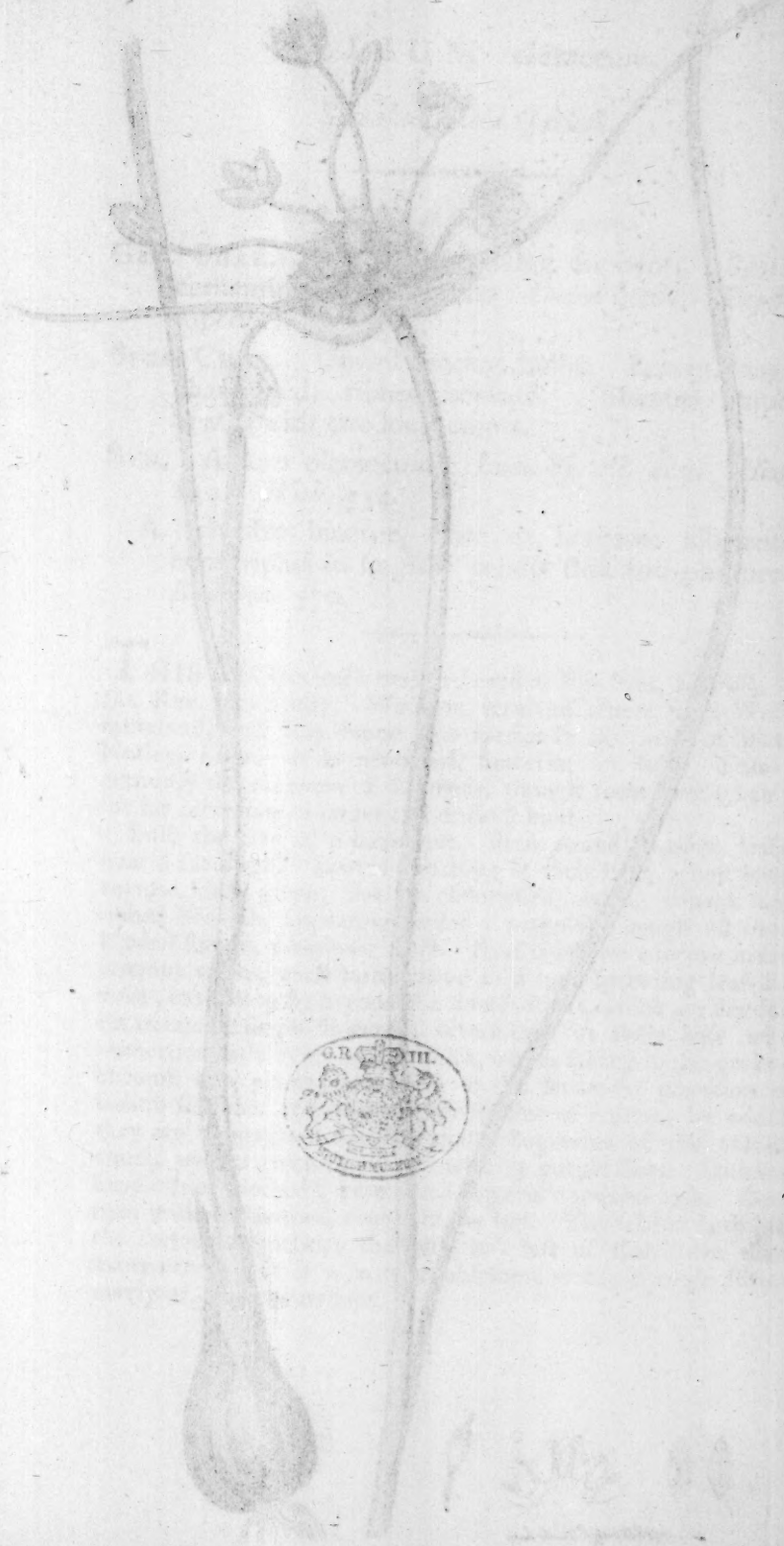
V. Lychnitis β. *Hudſ.* 90. var. 1. *With.* 249.

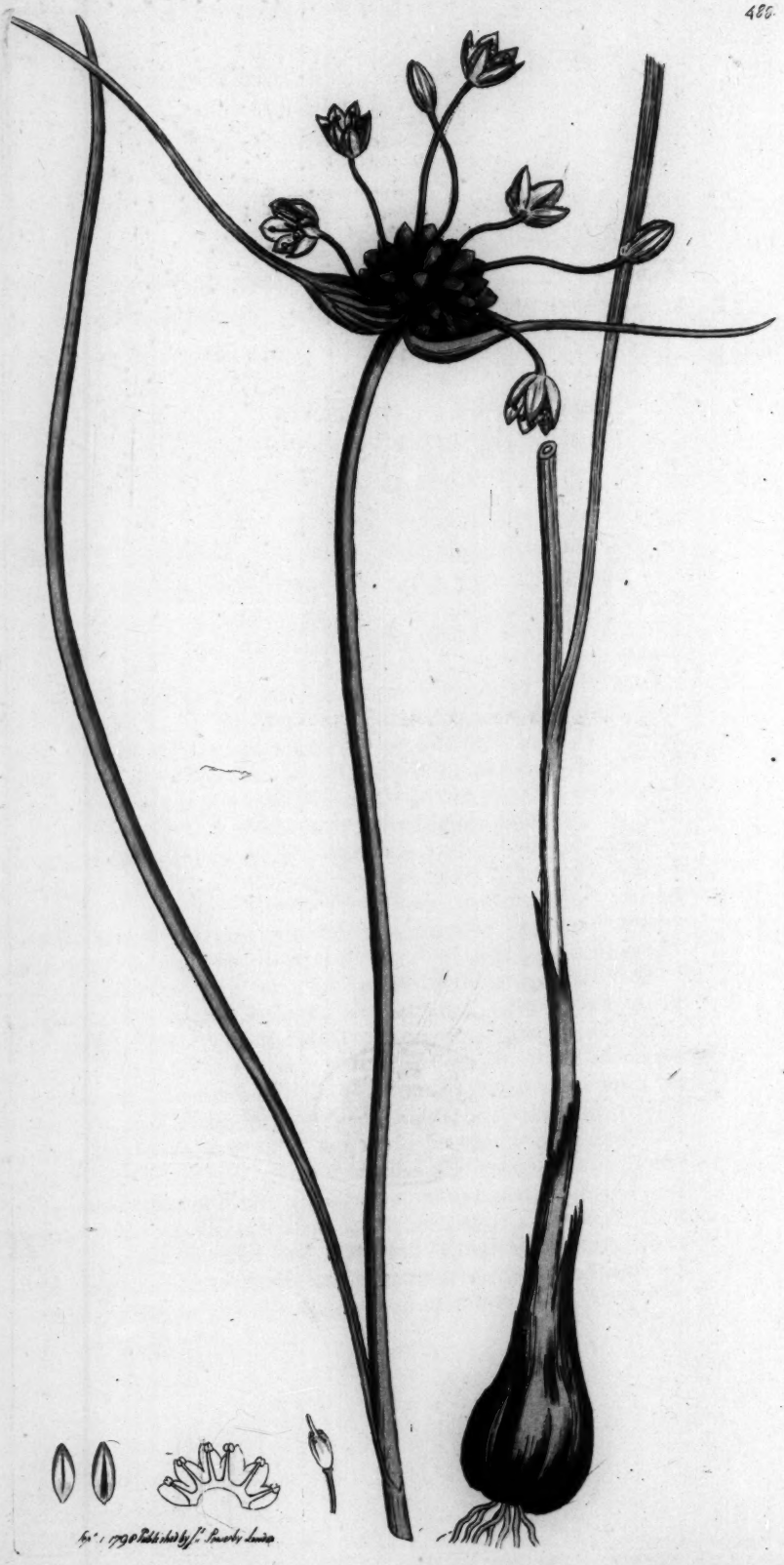
GATHERED by Mr. John Wagſtaff, at Norwich, about which town, as well as Bury, and in ſome other parts of Norfolk and Suffolk, this beautiful plant grows plentifully in waſte ground, hedges, and the borders of fields. It is biennial, flowering in July; at which time, if not previouſly broken or damaged, it forms a golden pyramid a yard high, of many hundreds of flowers, and is one of the moſt magnificent of Britiſh herbaceous plants.

The leaves are often above a foot long, of a ſomewhat elliptical pointed form, thoſe on the ſtem more ovate and ſeſſile, all of them ſlightly ſerrated, and clothed on both ſides with white mealy down, which eaſily rubs off, and, when ſeen in a microſcope, is found to conſiſt of numerous ſtarry entangled tufts. The ſtem is round, not angular as in true V. *Lychnitis*, *t.* 58, woolly, as well as the calyx, forming a pyramidal branched panicle. The flowers are cluſtered on its branches. Corolla large, bright yellow. Stamina ſcarlet, bearded with pale or white hairs. In ſome places, as Helleſdon, near Norwich, a mule plant is produced between this and V. *nigrum*, having the habit of the former, and flowers with purple ſtamina like the latter.

We are now ſatisfied that the capſule of this genus has 2 cells, and have corrected ourſelves accordingly.

A ſingular inſtance of irritability in this and ſome other ſpecies of *Verbaſcum* has been pointed out to us by Mr. Correa. In ſtill warm weather, if 2 or 3 ſmart blows be given to the ſtem with a cane or ſtick, all the corollæ then open, though not immediately looſened, in a few minutes fall off, ſeparating one after another from their baſe, and the calyx cloſes round the germen, ſeeming as it were to puſh the bloſſom off.


G.R. III.



Jan.ʳ 1790 Published by J.ᵒ Sowerby London

ALLIUM oleraceum.

Streaked Field Garlick.

HEXANDRIA Monogynia.

GEN. CHAR. *Cor.* in 6 ſpreading ſegments. *Spatha* containing many flowers. *Umbel* denſe. *Capſule* ſuperior.

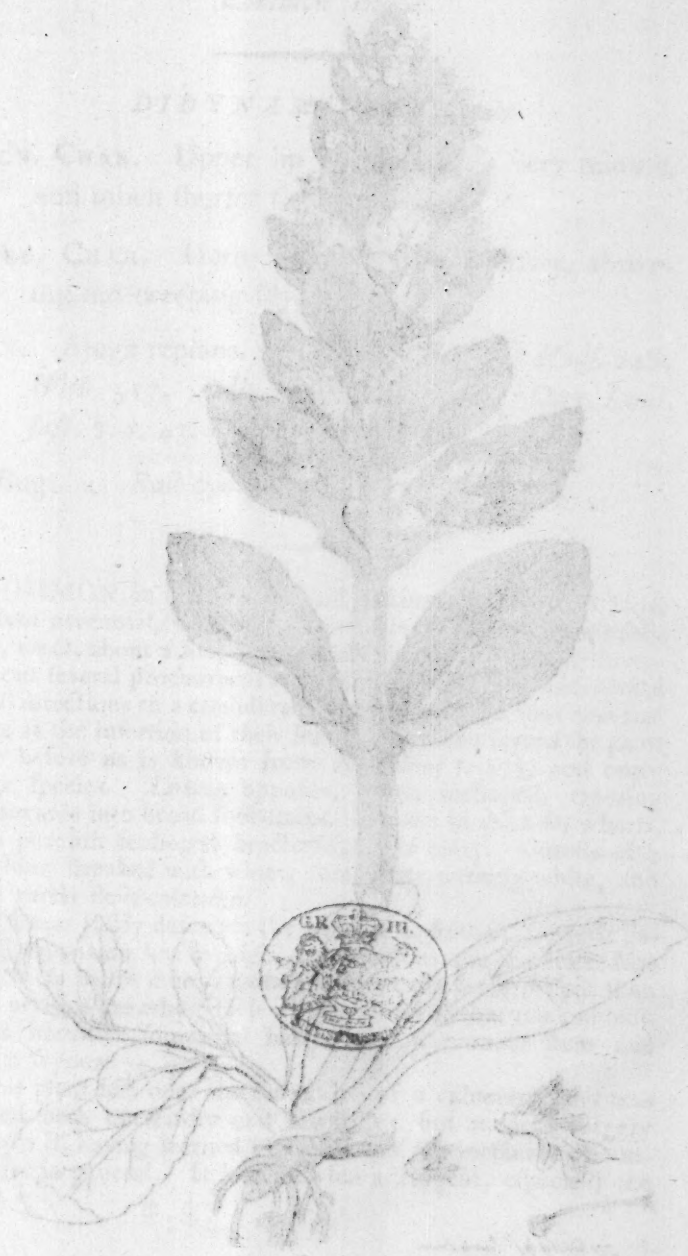
SPEC. CHAR. Umbel bearing bulbs. Leaves rough, channelled, ribbed beneath. Stamina ſimple. Spatha with two long points.

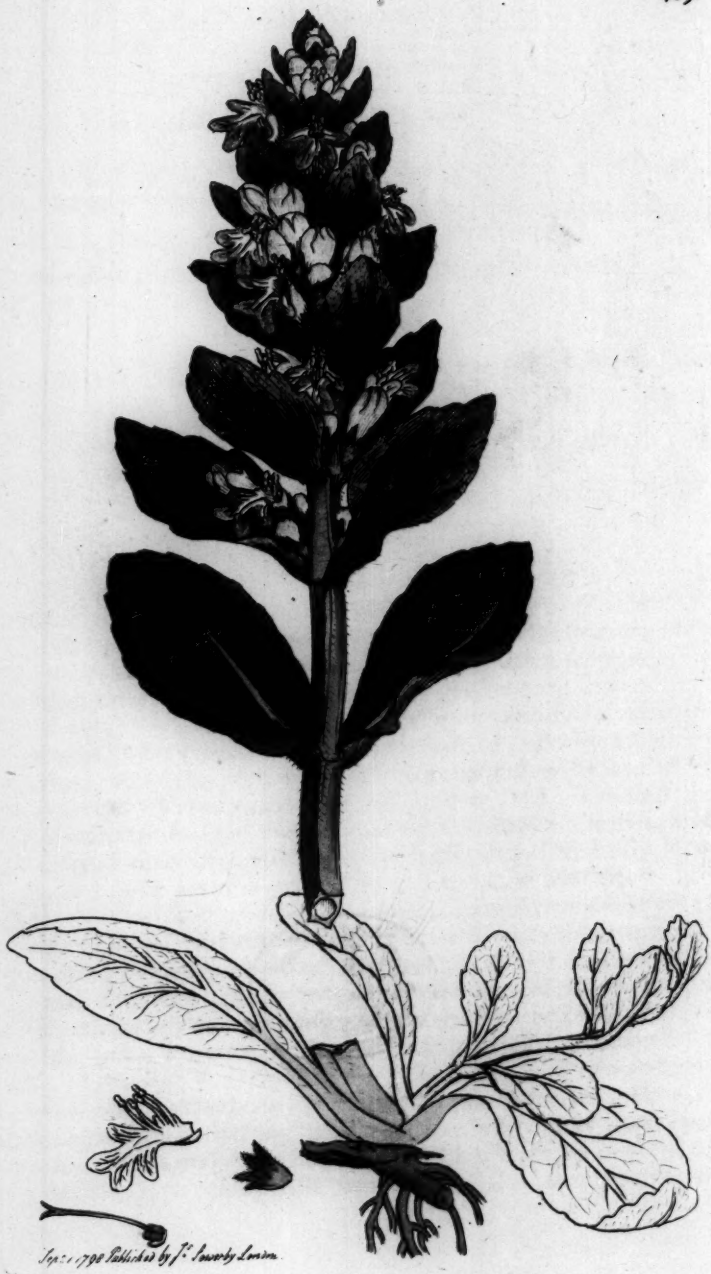
SYN. Allium oleraceum. *Linn. Sp. Pl.* 429. *Hudſ.* 140. *With.* 334.

A. ſylveſtre bicorne, flore ex herbaceo albicante, cum triplici in ſingulis petalis ſtriâ atro-purpureâ. *Raii Syn.* 370.

THIS wild ſpecimen was gathered at Fincham, Norfolk, by the Rev. Mr. Forby. We have received others from Weſtmoreland, and Ray found this ſpecies in his pariſh of Black Notley, Eſſex. It is perennial, flowering in July. This is certainly the *oleraceum* of Linnæus, though ſome have taken it for his *carinatum*, a larger and diſtinct kind.

Bulb the ſize of a hazel nut. Stem round, ſlender, leafy, near 2 feet high. Leaves ſheathing at their baſe, a foot long, narrow, dull green, flat or channelled above, convex and ribbed beneath, appearing under a magnifier rough all over. Umbel ſimple, terminal, erect. Spatha of two concave membranous valves, each terminating in a long ſpreading leaf-like point, extending far beyond the flower-ſtalks, which are ſlender, divaricated, ſingle-flowered, intermixed at their baſe with numerous little ovate purple bulbs, which falling to the ground become new plants, according to the bountiful proviſion of nature for this and many other ſpecies of Allium, by which they are propagated without end. Segments of the corolla equal, ovate, greeniſh white, with 3 purple lines. Stamina ſimple (not toothed), connected by one common baſe. Germen with 6 furrows, rough at the top. The whole herb has the fœtor of garlick; the bulb has leſs of that ſcent than many others. It is a very troubleſome weed, though fortunately of rare occurrence.


GR III.



Sept.r 1798 Published by J.s Sowerby London

AJUGA reptans.

Common Bugle.

DIDYNAMIA Gymnoſpermia.

GEN. CHAR. Upper lip of the *Corolla* very minute, and much ſhorter than the ſtamina.

SPEC. CHAR. Herb ſmooth. Stem ſolitary, throwing out creeping ſcyons.

SYN. Ajuga reptans. *Linn. Sp. Pl.* 785. *Hudſ.* 248. *With.* 517. *Relh.* 220. *Sibth.* 180. *Curt. Lond. faſc.* 2. *t.* 43.

Bugula. *Raii Syn.* 245.

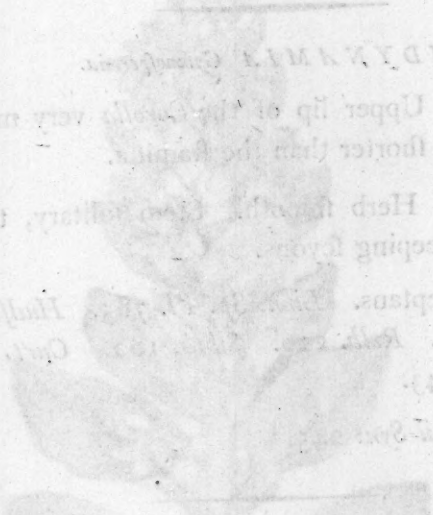
COMMON in woods and moiſt paſtures, flowering in May. Root perennial, with many ſtrong fibres. Stem always ſolitary, erect, about a foot high, ſquare, leafy, ſimple, but throwing out ſeveral procumbent roundiſh leafy ſcyons, which ſpread in all directions to a conſiderable extent, and take root here and there at the inſertion of their leaves. By theſe ſcyons the plant now before us is known from A. *alpina*, t. 477, and every other ſpecies. Leaves oppoſite, ovate, ſcolloped, tapering downwards into broad foot-ſtalks. Flowers in thick ſet whorls, with purpliſh ſcolloped bracteæ. Calyx hairy. Corolla of a full blue ſtreaked with white, ſometimes entirely white, and more rarely fleſh-coloured.

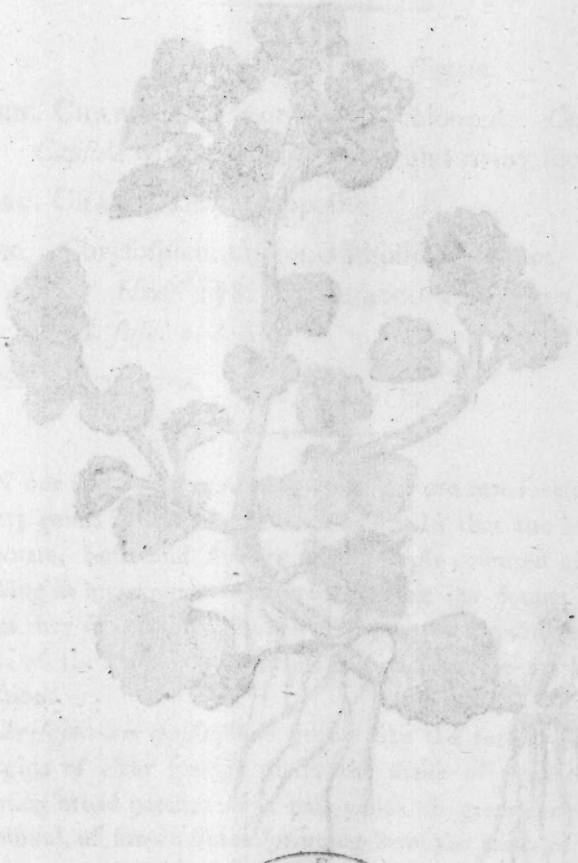
Linnæus juſtly deſcribes the herbage as ſmooth, for ſo it generally appears; but in high dry ſituations the accurate Mr. Gough (ſo much more accurate without the ſenſe of ſight than moſt perſons are who poſſeſs it) has remarked that the common Bugle becomes ſomewhat hairy, with a rounder ſtem and ſhorter ſcyons.

This plant had once the reputation of a vulnerary, and was applied both outwardly and inwardly; but modern ſurgery neglects it, having learned by experience the inefficacy of vulneraries in general. It is ſomewhat aſtringent, eſpecially the root.

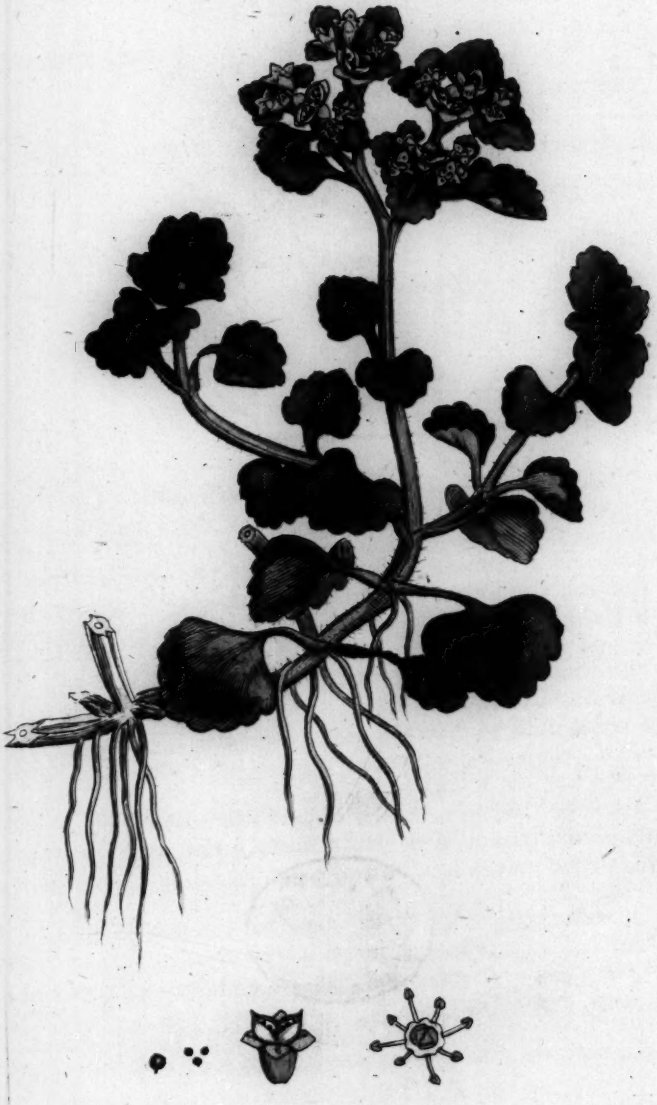
AJUGA reptans.

Common Bugle.





G.R. III.
BOARD OF WORKS



Engraved Published by J. Sowerby June 1st 1796

CHRYSOSPLENIUM oppoſitifolium.

Oppoſite-leaved Golden Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 4 or 5-cleft, coloured. *Cor.* none. *Capſule* with 2 beaks, 1 cell, and many ſeeds.

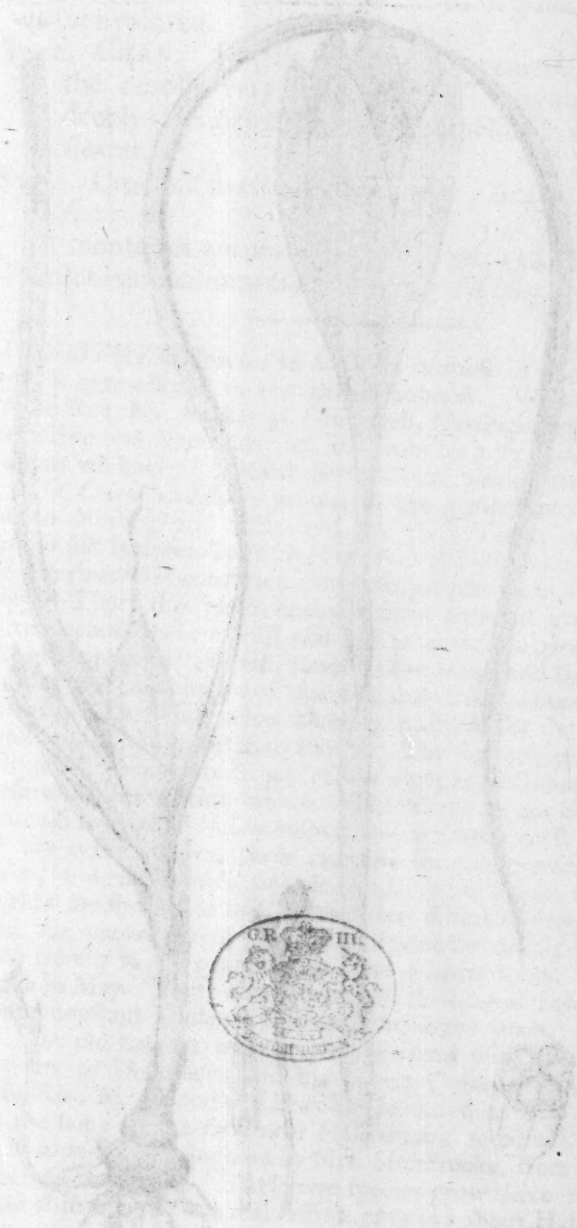
SPEC. CHAR. Leaves oppoſite.

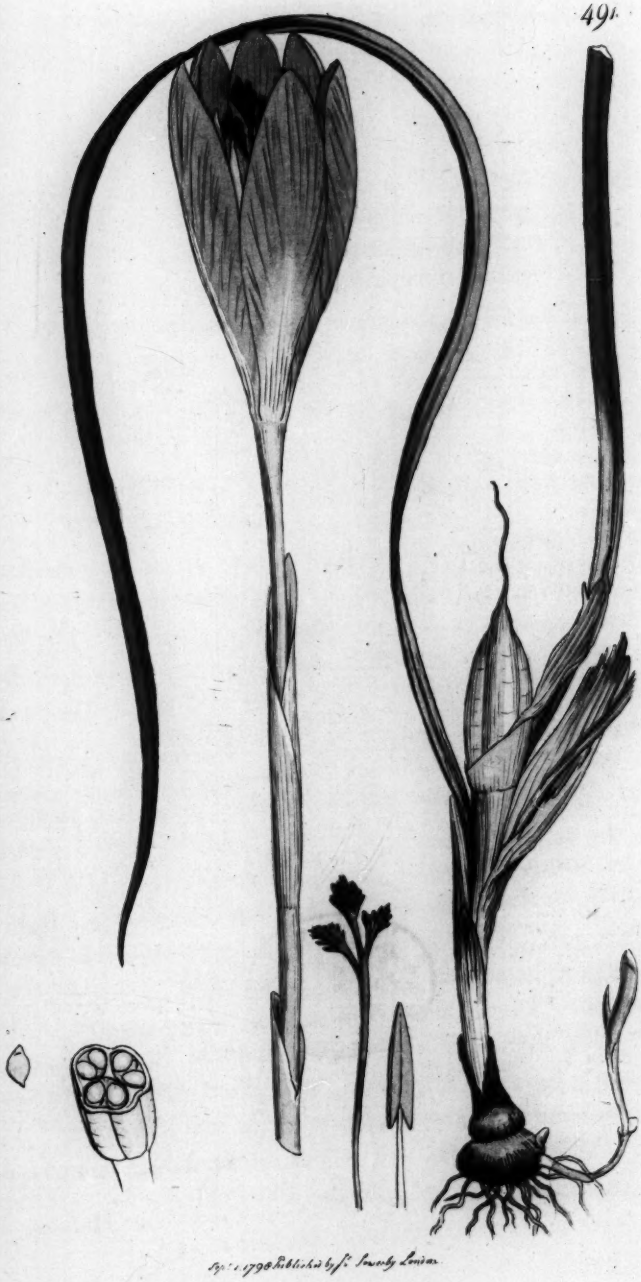
SYN. Chryſoſplenium oppoſitifolium. *Linn. Sp. Pl.* 569. *Hudſ.* 178. *With.* 402. *Sibth.* 137. *Curt. Lond. faſc.* 2. *t.* 27.

Saxifraga aurea. *Raii Syn.* 158.

IN our firſt volume, *t.* 54, the other more rare ſpecies of this pretty genus is figured and deſcribed. In that the leaves are alternate, herb and flowers more deeply coloured and more ſtriking in appearance. Notwithſtanding the doubts of Linnæus they ſeem unqueſtionably diſtinct, and the different ſituations of the leaves afford an elegant and deciſive mark of diſtinction.

Chryſoſplenium oppoſitifolium grows like the former about the margins of clear ſprings under the ſhade of trees or rocks, forming broad patches of a pale yellowiſh green hue. Root perennial, of ſimple fibres ſpringing from the joints of the procumbent part of the ſtem. Leaves all oppoſite, on footſtalks, inclining to heart-ſhaped, crenate, ſucculent, clothed with a few hairs. Flowers in a terminal leafy corymbus, pale yellow, moſtly four-cleft. Their notched glandular ring, which ſurrounds the baſe of the germen, is inſerted between that part and the ſtamina, and is therefore (as Mr. Curtis remarks) probably a nectary, or at leaſt it cannot be called a receptacle. The ſeeds are numerous, round and blackiſh.


G.R. III.



Sept.1.1798. Published by J.F. Stanley London.

CROCUS nudiflorus.

Naked-flowering Crocus.

TRIANDRIA Monogynia.

GEN. CHAR. *Cor.* in 6 diviſions, regular. *Stigmas* convoluted.

SPEC. CHAR. Sheath of one leaf, radical. Tube of the corolla very long, leafleſs. Stigma in three deeply laciniated ſegments, encloſed within the flower.

SYN. Crocus ſylveſtris autumnalis. *Dodon. Hiſt.* 214. *f.* 1.

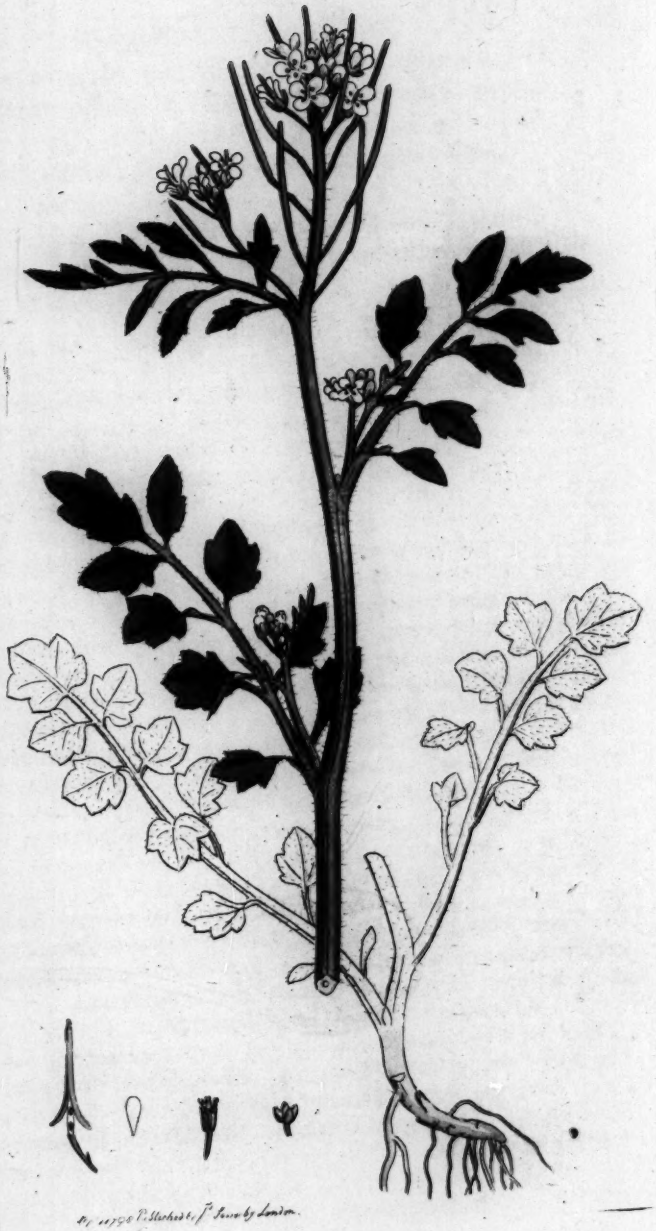
C. montanus autumnalis. *Ger. em.* 154. *f.* 6.

Colchicum commune. *Deering Nottingh.* 57.

ANOTHER Crocus, in addition to thoſe in our *t.* 343 and 344, is here offered to the Britiſh botaniſt. We are indebted to the Rev. Mr. Becher of Southwell, Nottinghamſhire, for its detection and determination, and from his very accurate obſervations we have eſtabliſhed the following particulars:

The *Crocus nudiflorus* grows, in the greateſt profuſion, between Nottingham caſtle and the river Trent, in meadows whoſe ſoil is naturally ſandy, but from the annual overflowings of the river it is converted into nearly equal parts of ſand and clay. There this plant enamels ſome acres of ground every autumn, and has been miſtaken by ſtrangers for a piece of water. From its place of growth, time of flowering, and the information of old inhabitants of the neighbourhood, there can be no doubt of its being what Deering miſtook for the *Colchicum*, which does not grow thereabouts. The flowers, perfectly deſtitute of leaves, are in perfection early in October, and fade before the end of that month. The leaves do not begin to appear till ſome time in December, and are more erect than thoſe of the other ſpecies, their margins ſcarcely revolute, colour paler, and their ends not decayed. The ſtigma is encloſed within the flower, as in C. *vernus*, but differs widely from that and the *autumnalis* in having its ſegments deeply ſubdivided into from 7 to 12, generally 9, narrow linear lobes. The ſeeds ripen in May. Theſe characters, and the time of flowering, are found conſtant in plants cultivated for many years.

The old authors were well acquainted with this plant, as appears by Dodonæus and his copier Gerarde above quoted. The Rev. Mr. Wood of Leeds has favoured us with ſpecimens of the ſame from a field near Halifax, and mentions its having been found at Nottingham by Mrs. Sherbrooke, from whom we received the *vernus*. Theſe two ſpecies grow there intermixed. The authority for the real ſaffron growing about Halifax, thus however falls to the ground. See our *t.* 343.



Pl. 1490 P. Stackhouse ft. Sowerby London.

CARDAMINE hirſuta.

Hairy Ladies'-Smock.

TETRADYNAMIA Siliquoſa.

GEN. CHAR. *Pod* burſting elaſtically, the valves turning back. *Stigma* entire. *Cal.* a little ſpreading. One *Gland* on each ſide, between the ſhorter ſtamina and the calyx.

SPEC. CHAR. Leaves pinnated; leaflets roundiſh or oblong, notched, on footſtalks. Stipulæ none.

SYN. Cardamine hirſuta. *Linn. Sp. Pl.* 915. *Hudſ.* 295. *With.* 578. *Sibth.* 205. *Curt. Lond. faſc.* 4. *t.* 48. *Lightf.* 348.
C. flexuoſa. *With.* 578.
C. parviflora. *Lightf.* 1104. *With. ed.* 2. 686.
C. impatiens altera hirſutior. *Raii Syn.* 300.

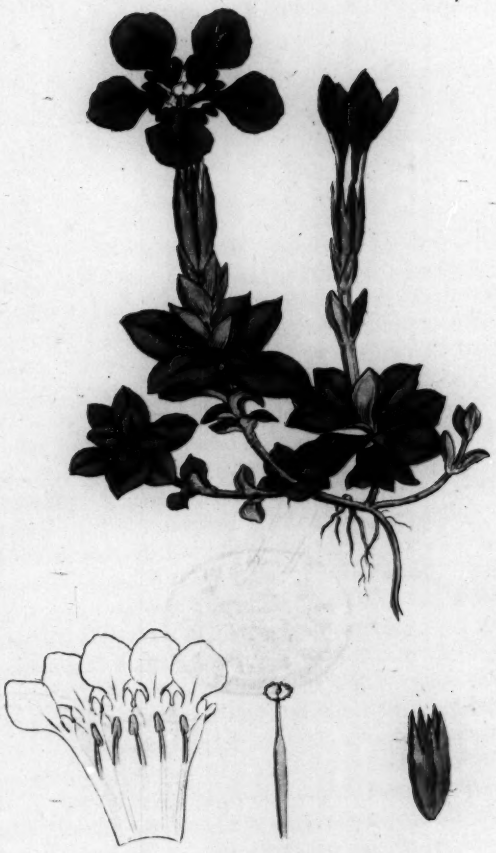
FREQUENT in moiſt ſhady places, gardens, and gravelly waſte ground, flowering in the ſpring, and varying much in luxuriance, as well as in degree of hairineſs.

Root annual, fibrous, white. Stem from 3 to 12 inches high, erect, more or leſs branched, leafy, angular, generally zigzag, clothed with ſcattered prominent hairs. Leaves pinnated, alternate; the leaflets of the lowermoſt round or heart-ſhaped, the reſt oblong, all of them notched, more or leſs hairy, rarely quite ſmooth, ſtanding on footſtalks, oppoſite or alternate. Stipulæ wanting. Flowers ſmall, white, numerous, in a terminal corymbus ſoon lengthened out into a ſpike. Stamina generally 6, but in early or ſtarved flowers 2 of them are often wanting. Seeds numerous, ſmall.

Some of our Britiſh botaniſts have been much in doubt about this plant. To us it is clear that all the ſynonyms above cited belong to only one ſpecies, nor do they even expreſs a marked variety. Luxuriant ſpecimens are moſt zigzag, ſtarved ones moſt hairy. The C. *parviflora* of Linnæus is a very diſtinct ſpecies, not hitherto obſerved in Britain.

C. *hirſuta* is eatable in a young ſtate as a ſallad, having the flavour of the water creſs, yet it has not come into general uſe. It is, in ſome gardens, a troubleſome weed; for the radical leaves ſpread cloſe to the ground, and effectually ſmother more delicate ſeedlings.

G.R. III.
BRITISH MUSEUM



Jan.ʳ 1790 Published by J. Sowerby London

GENTIANA verna.

Spring Gentian.

PENTANDRIA Digynia.

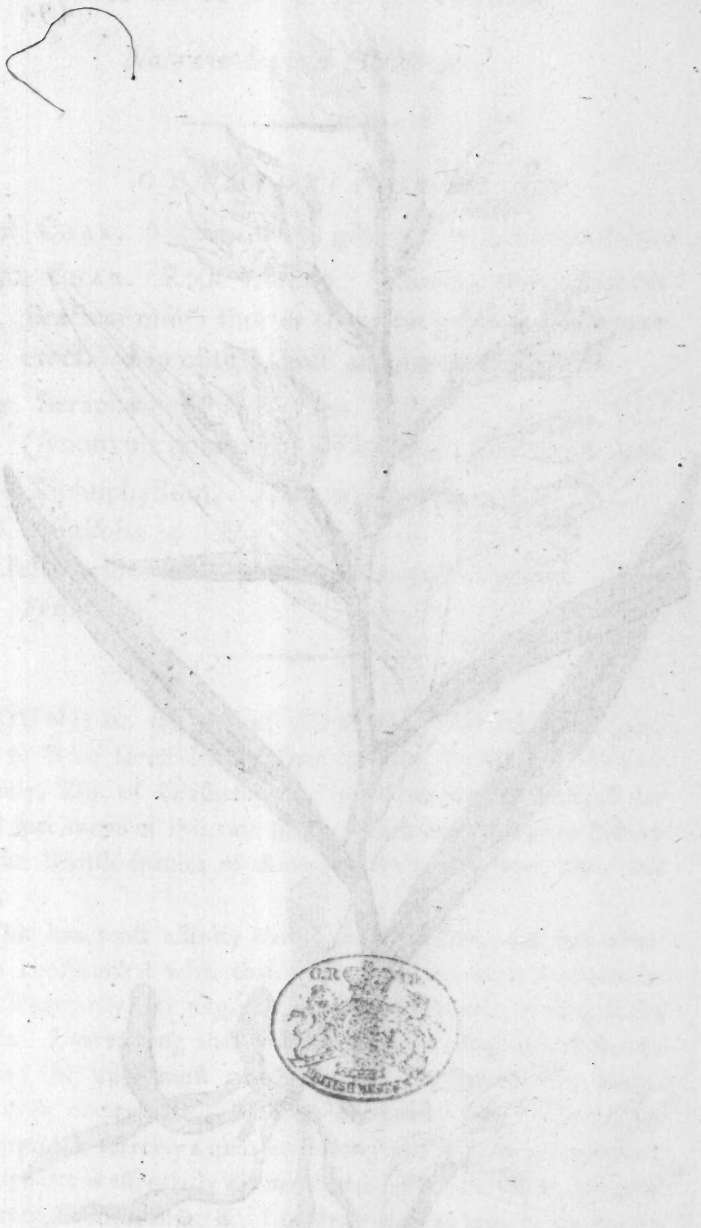
GEN. CHAR. *Cor.* of one petal. *Capſule* ſuperior, one-celled, two-valved, with 2 longitudinal receptacles.

SPEC. CHAR. Corolla five-cleft, ſalver-ſhaped, crenate; ſegments toothed at their baſe. Leaves cluſtered, ovate.

SYN. Gentiana verna. *Linn. Sp. Pl.* 331.
G. n. 644. *Hall. Hiſt. V.* 1. 286. Davall.
Gentianella alpina verna. *Ger. em.* 436. *f.* 2. *How. Phytolog.* 46. *Merr. Pin.* 45.

THIS very elegant plant was gathered, in April 1797, in Teeſdale foreſt, Durham, by Mr. John Binks, and ſent us by the Rev. Mr. Harriman, the firſt botaniſt who has aſcertained it in England, though the inhabitants of the foreſt know it well by the name of Spring Violet, as it copiouſly enamels that country at a time when no other flower enlivens the dreary ſcene. Dr. How in his *Phytologia*, printed in 1650, mentions this Gentian as having been found abundantly in the mountains betwixt Gort and Galloway, Ireland, by Mr. Heaton; yet Ray has only reckoned it among the doubtful natives of theſe kingdoms. We have been favoured with fine recent ſpecimens by the Hon. Mrs. Barrington. Mr. Oliver of Middleton has communicated a number of dried ones, which have been carefully compared with the Linnæan Herbarium, and prove this the real G. *verna*; though it is by no means clear that G. *Bavarica*, differing only in having a taller ſtem, and ſpatulate blunt leaves, is a diſtinct ſpecies, for ſome of Mr. Oliver's ſpecimens have very blunt though ſtill ovate leaves. Linnæus did not well underſtand the ſpecies of *Gentiana*, *Anemone*, and ſome others of Alpine growth.

The root of G. *verna* is perennial, thread-ſhaped, and creeping. Stems about an inch high, ſimple, ſingle-flowered, thickly clothed with leaves which are more eſpecially cluſtered in the lower part, and are of an ovate form, entire, generally pointed. Flower ſolitary, terminal, erect, large. Calyx with 5 waved carinated angles, and 5 equal ſharp teeth. Corolla with a plaited cylindrical tube, twice as long as the calyx, and a flat limb in 5 equal obovate crenated lobes, of a moſt vivid blue, with a tooth on each ſide at their baſe. Stamina ſhorter than the tube. Germen cylindrical. Style really ſimple, with a flat, feathery, 2-lobed ſtigma. The whole herb is ſmooth, leſs bitter than moſt Gentians. Sometimes the flowers are of a paler blue.



Sept.r 1790 Published by Jas. Sowerby London

SERAPIAS enſifolia.

Narrow-leaved Helleborine.

GYNANDRIA Diandria.

GEN. CHAR. *Nectary* ovate, gibbous, with an ovate lip.

SPEC. CHAR. Root fibrous. Leaves ſword-ſhaped. Bracteæ much ſhorter than the germen. Flowers erect. Lip obtuſe, half as long as the petals.

SYN. Serapias enſifolia. *Linn. Syſt. Veg. ed.* 14. 815, (ſynonyms confuſed). *With.* 42. *Fl. Dan. t.* 506.

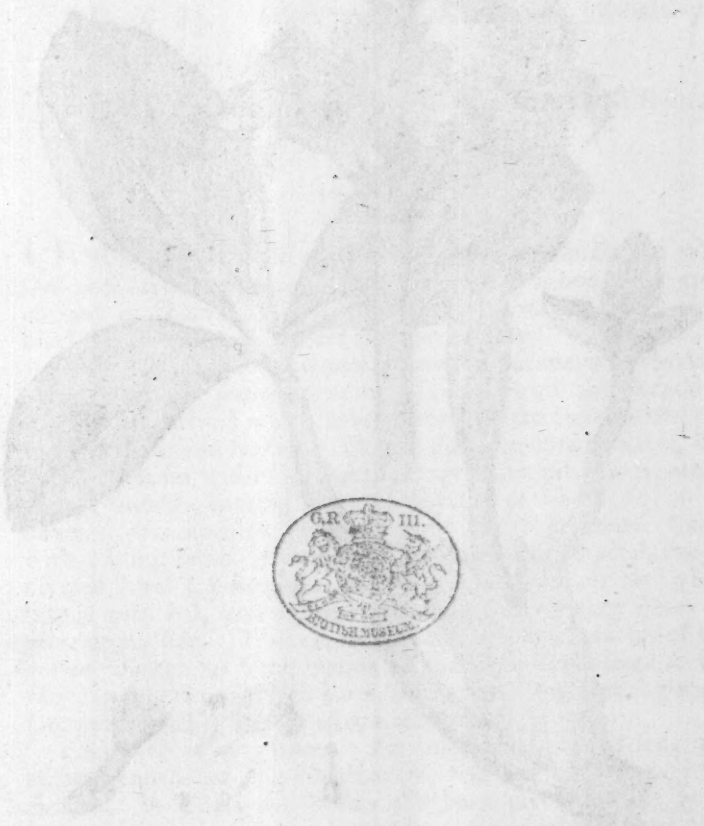
S. Xiphophyllum. *Linn. Suppl.* 404.

S. longifolia γ. *Hudſ.* 394.

Helleborine foliis prælongis anguſtis acutis. *Raii Syn.* 384.

FOUND on the top of Aberly hill, Worceſterſhire, and alſo in Wire foreſt in the ſame county, by Walter Michael Moſely, Eſq. of Glaſhampton, to whom we are obliged for wild ſpecimens of this rare plant, which completes our hiſtory of the Britiſh ſpecies of *Serapias*; ſee *t.* 269, 270, 271, and 437.

This has moſt affinity with the *grandiflora*, and has often been confounded with that. The root however ſeems to be not ſo properly creeping, but conſiſts of a bundle of long fleſhy fibres. Leaves long and ſword-ſhaped, ſtanding almoſt in two ranks; the uppermoſt nearly linear; the loweſt very blunt, and even emarginate. Bracteæ extremely ſmall (except the lowermoſt), ſcarcely a quarter ſo long as the germen, by which this ſpecies is eſſentially diſtinguiſhed. Flowers white, upright. Germen ſlender, ſtriated. Lip about half as long as the petals, obtuſe, with white elevated ribs running longitudinally, and in the front a yellow creſcent-like ſpot.


G.R. III.
BRITISH MUSEUM

Jan.ʳ 1798 Published by J.ᵗ Sowerby London

MENYANTHES trifoliata.

Common Buckbean.

PENTANDRIA Monogynia.

GEN. CHAR. *Corolla* hairy. *Stigma* cloven. *Capſule* of 1 cell.

SPEC. CHAR. Leaves ternate.

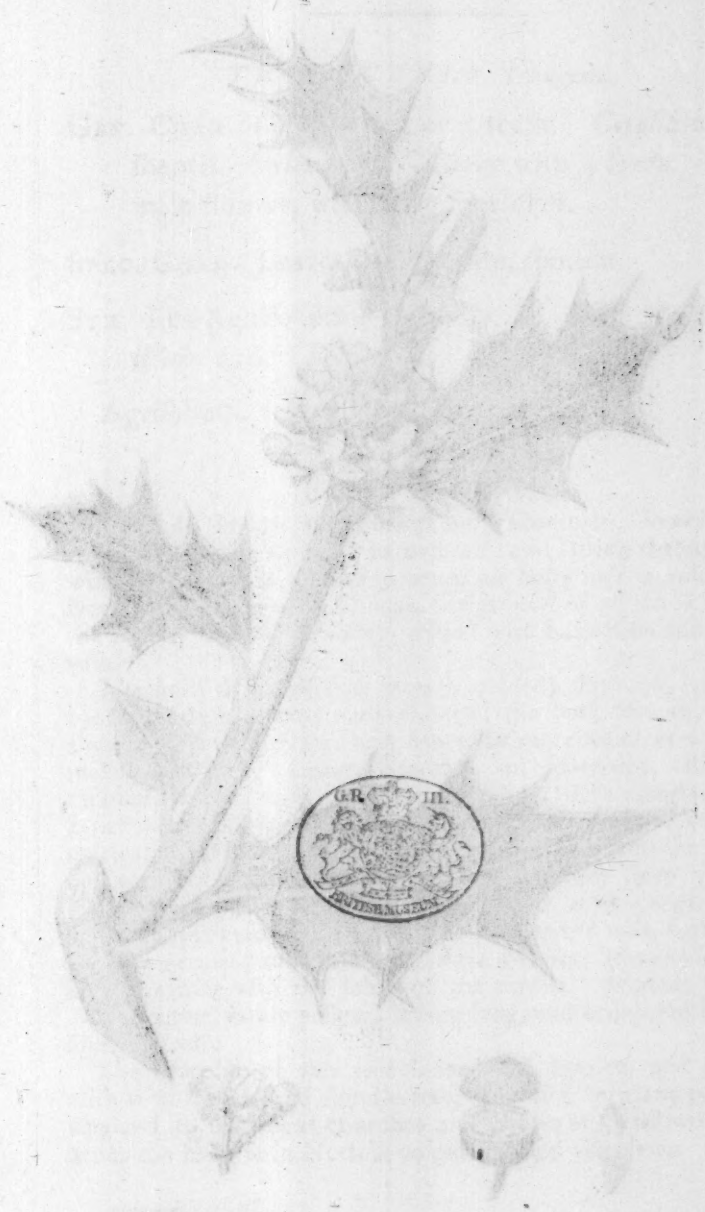
SYN. Menyanthes trifoliata. *Linn. Sp. Pl.* 208. *Hudſ.* 85. *With.* 236. *Relh.* 82. *Sibth.* 73. *Curt. Lond. faſc.* 4. *t.* 17.

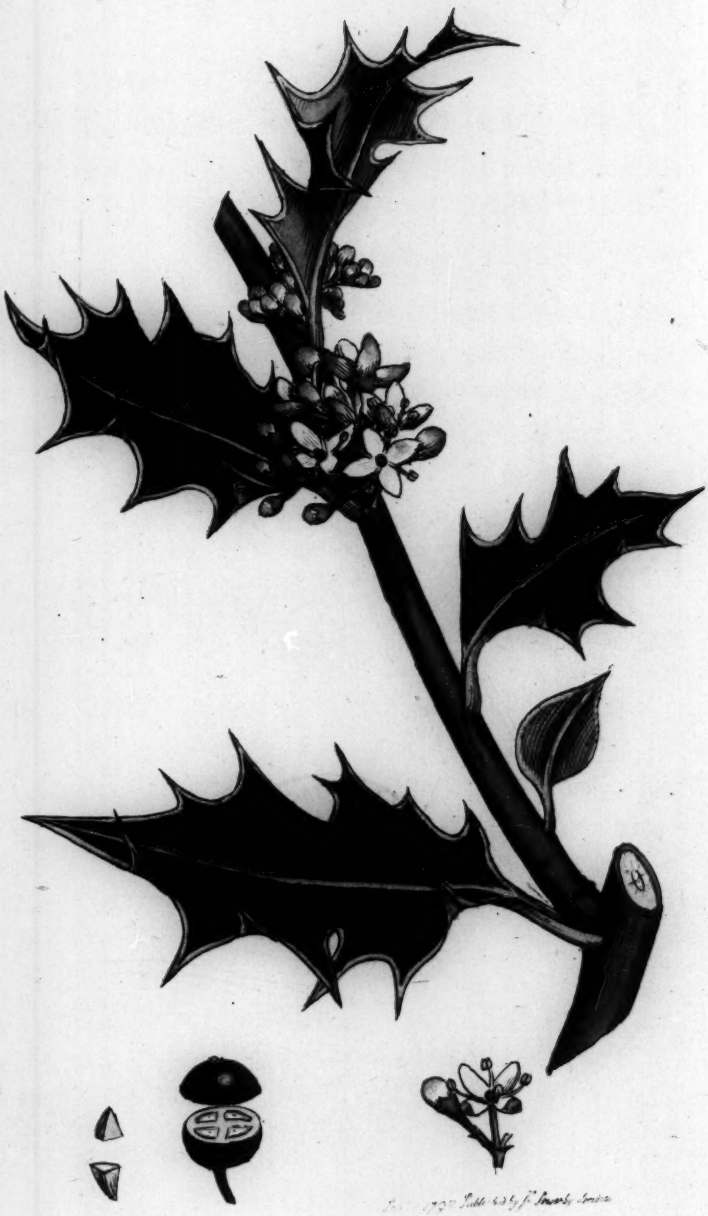
M. paluſtre triphyllum latifolium et anguſtifolium. *Raii Syn.* 285.

OUR aquatic plants are thoſe which principally vie with the moſt favoured exotics in beauty, and this is one of the moſt elegant of them. It is very frequent in watery places, in a black boggy ſoil, and flowers in June or July.

Root perennial, long, round, throwing out many fibres deep into the mud. Stem ſpreading, clothed with the ſheathing foot-ſtalks, each of which bears three obovate ſmooth bluntly-toothed or waved leaflets. Flower-ſtalk oppoſite to a leaf, but ſpringing from within its ſheath, longer than the leaves, erect, round, ſmooth, bearing a ſimple thyrſus of about 10 or 15 flowers, accompanied by ſmall ovate entire bracteæ. Calyx with 5 blunt teeth. Corolla of one funnel-ſhaped petal, deeply divided into 5 lanceolate acute ſegments, which are white tipped with red, and clothed with long fleſhy ſhaggy fibres on their upper ſide. This conſtitutes the proper character of the genus, though in ſome ſpecies the hairineſs is confined to the edge, in others upon both parts, ſee *t.* 217. Antheræ ſagittate. Germen round. Stigma cloven and notched.

This herb is very bitter. An infuſion of it was long ago recommended for the rheumatiſm, and has been a popular medicine in England. It has alſo been given for the gout, ſcurvy, ague, catarrh, and dropſy, a formidable liſt of diſorders: if it has any right to ſuch celebrity, it muſt act as a powerful tonic.


G.R. III.
BRITISH MUSEUM



ILEX Aquifolium.

Common Holly.

TETRANDRIA Tetragynia.

GEN. CHAR. *Calyx* with 4 or 5 teeth. *Corolla* wheel-ſhaped. *Styles* none. *Berry* with 4 ſeeds. Some male flowers, which are four-cleft.

SPEC. CHAR. Leaves ovate, acute, ſpinous.

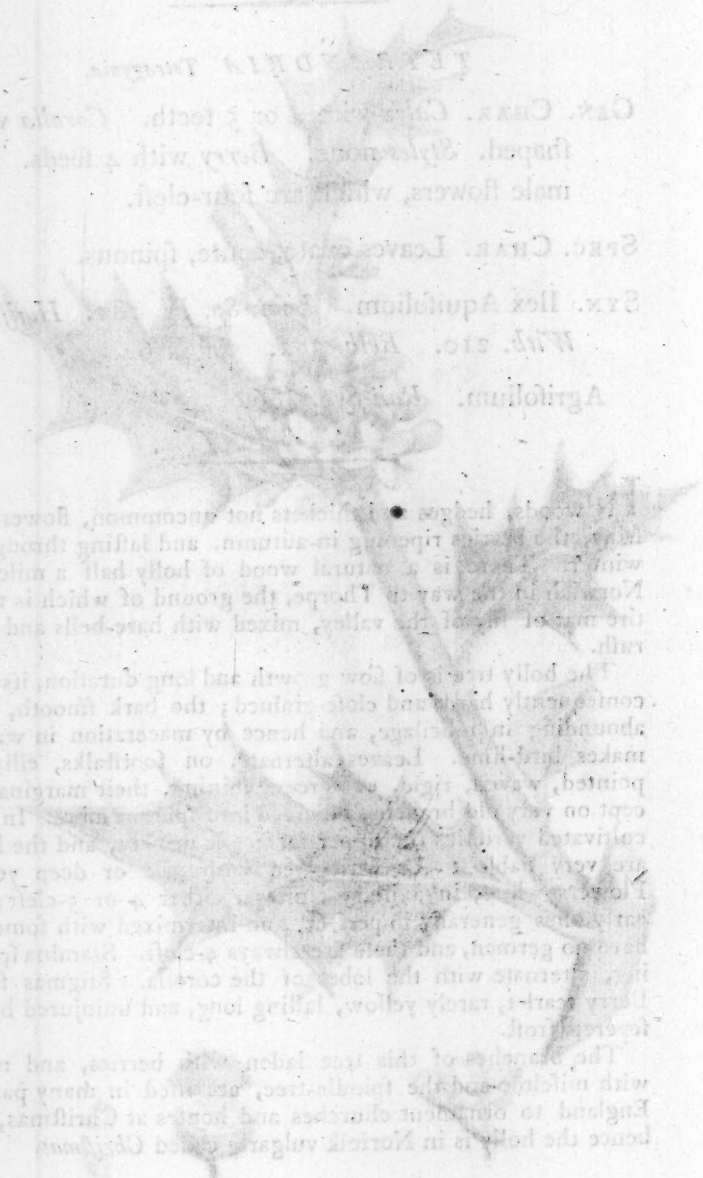
SYN. Ilex Aquifolium. *Linn. Sp. Pl.* 181. *Hudſ.* 446. *With.* 210. *Relh.* 382. *Sibth.* 64.

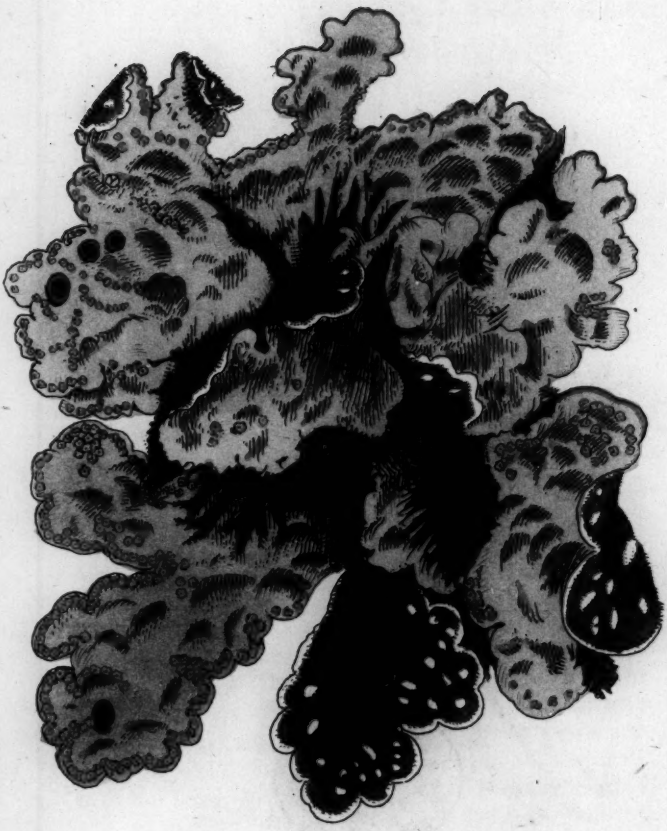
Agrifolium. *Raii Syn.* 466.

IN woods, hedges and thickets not uncommon, flowering in May, the berries ripening in autumn, and laſting through the winter. There is a natural wood of holly half a mile from Norwich in the way to Thorpe, the ground of which is an entire mat of lily of the valley, mixed with hare-bells and wood ruſh.

The holly tree is of ſlow growth and long duration, its wood conſequently hard, and cloſe-grained; the bark ſmooth, grey, abounding in mucilage, and hence by maceration in water it makes bird-lime. Leaves alternate, on footſtalks, elliptical, pointed, waved, rigid, evergreen, ſhining, their margins (except on very old branches) divided into ſpinous lobes. In ſome cultivated varieties the upper ſurface is prickly, and the leaves are very liable to be variegated with pale or deep yellow. Flowers white, in axillary cluſters, either 4 or 5-cleft; the early ones generally imperfect, and intermixed with ſome that have no germen, and theſe are always 4-cleft. Stamina ſpreading, alternate with the lobes of the corolla. Stigmas ſeſſile. Berry ſcarlet, rarely yellow, laſting long, and uninjured by our ſevereſt froſt.

The branches of this tree laden with berries, and mixed with miſeltoe and the ſpindle-tree, are uſed in many parts of England to ornament churches and houſes at Chriſtmas, and hence the holly is in Norfolk vulgarly called *Chriſtmas*.





Pubd 1790 Published by J. Sowerby London

LICHEN ſcrobiculatus.

Pitted Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Leafy, creeping, roundly lobed, crenate, pitted; glaucous above, with mealy warts; brown and downy beneath, with white bald ſpots. Shields ſmall, ſcattered, tawny.

SYN. Lichen ſcrobiculatus. *Scop. Carn. n.* 1391. *Lightf.* 850. *With. V.* 4. 59.

L. verrucoſus. *Hudſ.* 545. *Sibth.* 331. *Jacq. Coll. V.* 4. 278. *t.* 18. *f.* 2.

Lichenoides pulmoneum villoſum, ſuperficie ſcrobiculata et peltata. *Dill. Muſc.* 216. *t.* 29. *f.* 114.

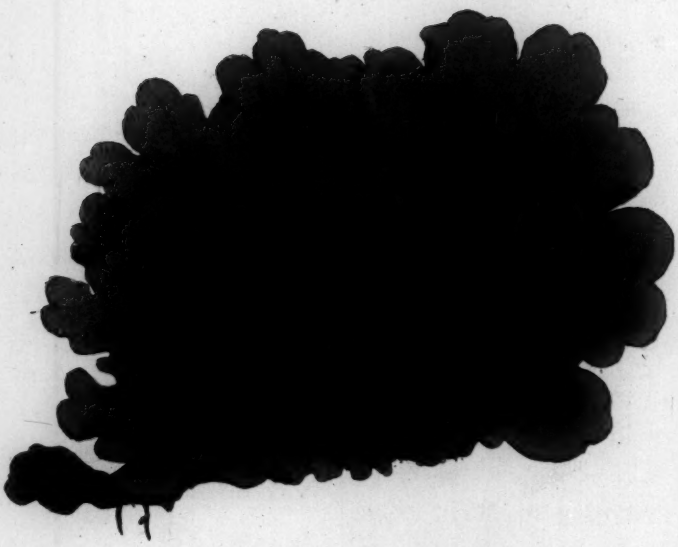
L. arboreum folioſum cinereum et ſinuatum, inferne ſcabrum. *Raii Syn.* 75.

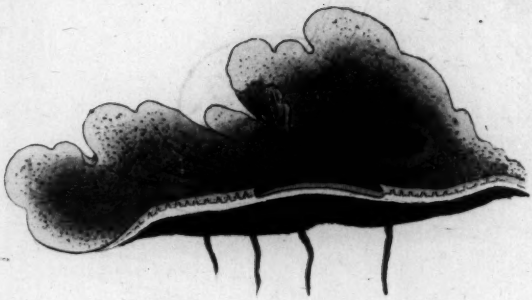
Pulmonaria verrucoſa. *Hoffm. Pl. Lich. t.* 1. *f.* 1.

FOUND on the trunks of trees, ſometimes on moſſy dry rocks, in the mountainous parts of England, Scotland and Wales, but not frequently. The fronds ſpread looſely over each other, and are rather leafy than coriaceous, cut into round lobes and obtuſely notched. Their upper ſide is glaucous, full of irregular pits, ſmooth towards the baſe or centre, but towards the margin they are ſprinkled with grey mealy warts. The under ſide is downy, brown, paler towards the edge, and ſpotted all over with irregular bare white ſpots. The ſhields are ſo rare that Dillenius never ſaw them, but copied them from Micheli, in whoſe figure *t.* 49. they are drawn without any margin. After the examination of many hundred ſpecimens we have found two in fructification. In theſe the ſhields are about the ſize of muſtard ſeed, of a tawny brown, flat, with an elevated, inflexed, downy (not mealy) margin, of the colour of the frond.

We know not why Mr. Hudſon choſe to change Scopoli's expreſſive name for this Lichen: we reſtore it with the more ſatisfaction, as there is another L. *verrucoſus* in Weber.

G R
III





LICHEN croceus.

Saffron-coloured Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, ſcattered warts.

Female, ſmooth ſhields or tubercles, in which the ſeeds are imbedded.

SPEC. CHAR. Coriaceous, creeping, roundiſh, flat; beneath veiny, downy and ſaffron-coloured. Shields ſcattered, flat, cloſely attached to the frond.

SYN. Lichen croceus. *Linn. Sp. Pl.* 1616. *Hudſ.* 548. *With. V.* 4. 68. *Jacq. Coll. V.* 4. 255. *t.* 11. *f.* 2, 3.

Lichenoides ſubtus croceum, peltis appreſſis. *Dill. Muſc.* 221. *t.* 30. *f.* 120.

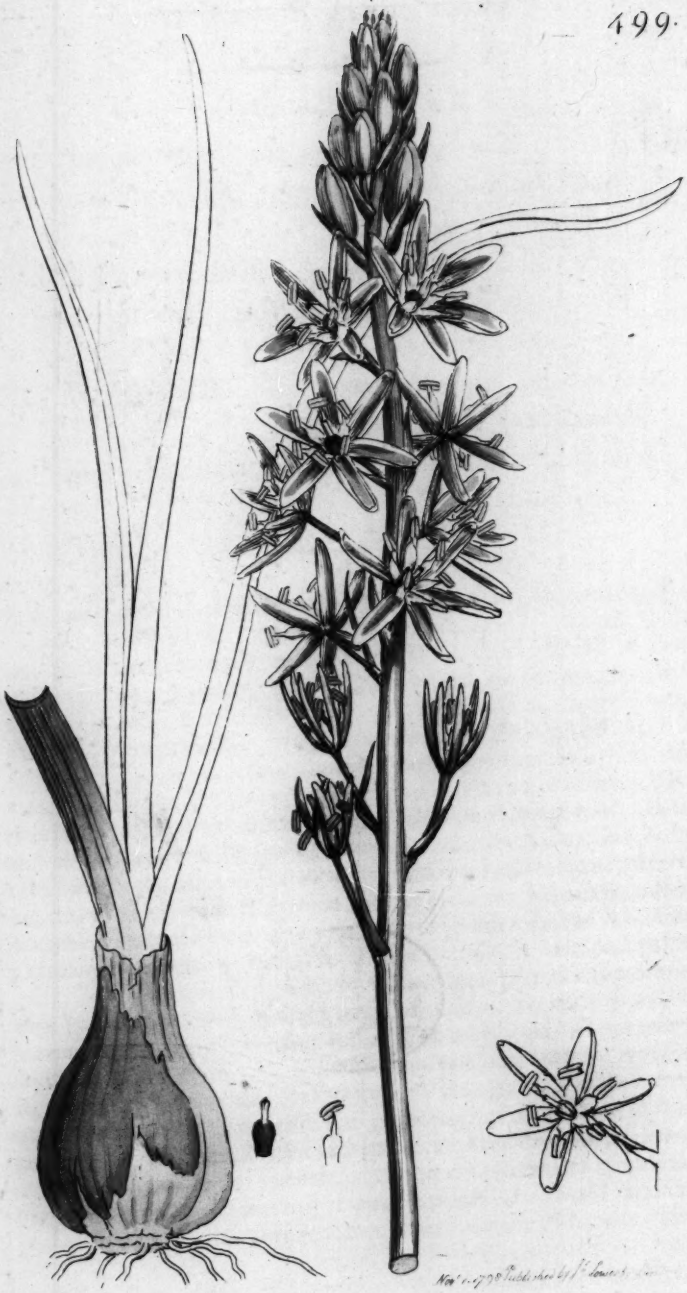
Peltigera crocea. *Hoffm. Pl. Lich. t.* 41. *f.* 2-4. *t.* 42. *f.* 4, 5.

ONE of the moſt beautiful, as well as the moſt rare, of our alpine Lichens, for freſh ſpecimens of which we are indebted to Mr. Don of Forfar, and Mr. Mackay of Edinburgh; and theſe are the more acceptable, as Dillenius and Hoffmann knew the plant in a bad dried ſtate only, the latter having condeſcended to copy the, not very excellent, drawing by Wulfen in Jacquin's *Collectanea*, for want of better materials.

This ſpecies grows flat on the ground, particularly in ſandy barren ſpots on alpine heaths. It forms circular patches of leathery fronds, a little imbricated, obtuſely lobed. Their upper ſurface is granulated, of a fine green, turning brown when dry; the under ſide is of a moſt vivid ſaffron or orange colour, which retains its beauty a long time, and is marked with many prominent veins, throwing out roots. Shields ſcattered, plentiful, flat, and cloſely attached to the frond, with whoſe external cuticle they are at firſt covered; they are roundiſh, ſmooth, cheſnut-coloured.

L. *ſaccatus*, figured in *t.* 288, has moſt affinity with this, but they are ſufficiently diſtinct.

G.R. III



ORNITHOGALUM pyrenaicum.

Spiked Star of Bethlehem.

HEXANDRIA Monogynia.

GEN. CHAR. *Cor.* of 6 petals, erect, permanent, from about the midway ſpreading. *Filaments* alternately broader at the baſe.

SPEC. CHAR. Spike very long. Filaments all dilated. Flower-ſtalks equal, ſpreading, growing erect as the fruit ripens.

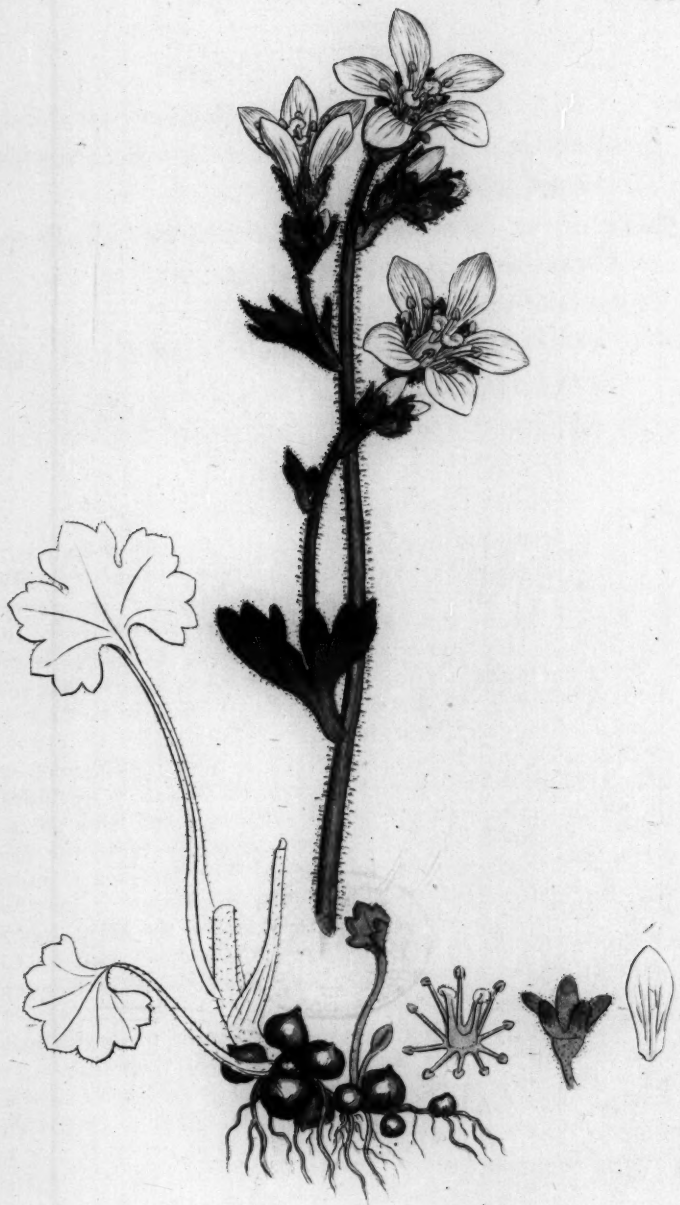
SYN. Ornithogalum pyrenaicum. *Linn. Sp. Pl.* 440. *Hudſ.* 143. *With.* 337.

O. anguſtifolium majus, floribus ex albo vireſcentibus. *Raii Syn.* 372.

IN paſtures in the ſouthern or midland counties, but not frequent. This ſpecimen was ſent by the Rev. Thomas Orlebar Marſh, F.L.S. from Keyſon Park wood, Bedfordſhire, who alſo mentions this plant's growing copiouſly at Eaton Socon in the ſame county. Hitherto it has been met with in Suſſex and Somerſetſhire only. The flowers begin to open in June, and continue through July.

Root an ovate bulb. Leaves long, linear, roundly channelled, their tips ſoon withering. Stalk two feet or more in height, erect, round, ſmooth, ſimple, terminated by an upright ſimple ſpike of numerous greeniſh unornamental flowers, ſtanding on alternate ſpreading flower-ſtalks, each of which is accompanied at its baſe by a lanceolate pointed bractea, about its own length. After flowering theſe ſtalks become more erect, and finally preſſed cloſe to the main ſtalk; the whole ſpike is alſo by degrees greatly lengthened out, and becomes a *racemus*, for nature has not very diſtinctly drawn a line between the *racemus* and the *ſpica*. The petals are of a narrow elliptical figure, permanent, contracting much in breadth, and turning greener, as they dry. Stamina in our ſpecimens, as well as the Linnæan ones, all nearly of a breadth, lanceolate, ſuddenly contracting about their middle into a ſetaceous form. Germen obovate, furrowed. Style ſtraight, ſhort, with a blunt ſmall three-cleft ſtigma.

BRITISH MUSEUM



SAXIFRAGA granulata.

White Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Capſ.* with two beaks, one cell, and many *ſeeds*.

SPEC. CHAR. Stem-leaves kidney-ſhaped, lobed. Stem branched. Root granulated.

SYN. Saxifraga granulata. *Linn. Sp. Pl.* 576. *Hudſ.* 182. *With.* 405. *Relh.* 166. *Sibth.* 137. *Curt. Lond. faſc.* 1. *t.* 30. *Dickſ. H. Sicc. faſc.* 5. 5.

S. rotundifolia alba. *Raii Syn.* 354.

THIS pretty Saxifrage, rendered conſpicuous by its brilliant white bloſſoms in the month of May, grows in dry paſtures and on banks, where the ſoil is gravelly, but not very frequently, though where it does occur it is always in plenty. About Norwich it is far from rare; near London it is leſs common.

Root perennial, of ſeveral little grains or knobs, attached to one main fibre, and throwing out ſmall fibres from their baſe. Stem ſolitary, erect, branched and panicled above, leafy, round, clothed with viſcid hairs, and of a brown or reddiſh hue, with which colour the leaves and calyx-teeth are alſo tinged, giving the whole herb a rich and glowing appearance: theſe parts are alſo clothed with the ſame kind of hairs, eſpecially the calyx, which is very clammy to the touch. The leaves are palmate and notched, ſomewhat fleſhy, the radical ones on long foot-ſtalks. Petals obovate, much longer than the calyx, marked with three branched veins. Stamina all nearly equal. Germen inferior. Stigmas blunt and downy.—It is frequently cultivated with double flowers.

This plant has been recommended in the ſtone and gravel, becauſe its granulated roots reſemble ſmall pebbles; but not being within the reach of every bungling apothecary or village doctreſs, its place has been capriciouſly ſupplied by the *Pimpinella*, *t.* 407, with which it has ſcarcely any character or property in common.

G.R. III

SAXIFRAGA tridactylites.

Rue-leaved Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* five-cleft. *Petals* five. *Capſ.* with two beaks, one cell, and many *ſeeds*.

SPEC. CHAR. Stem-leaves wedge-ſhaped, three or five-cleft, alternate; the uppermoſt undivided. Stem erect, panicled.

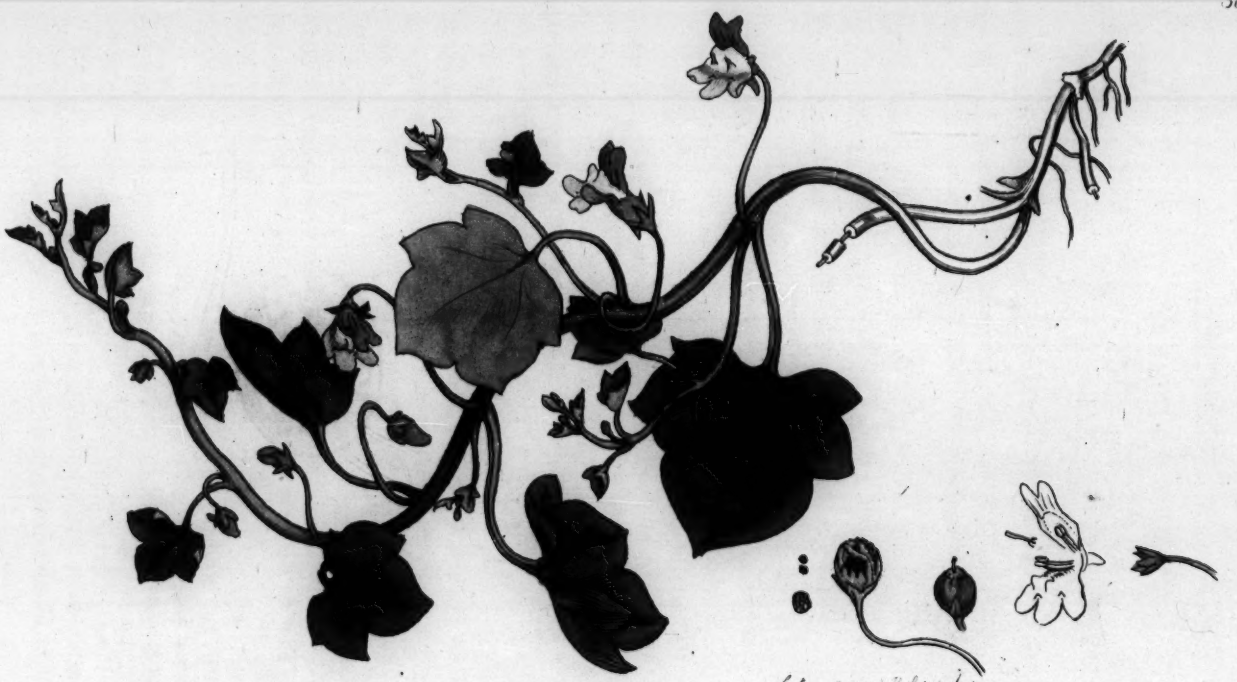
SYN. Saxifraga tridactylites. *Linn. Sp. Pl.* 578. *Hudſ.* 182. *With.* 406. *Relh.* 166. *Sibth.* 138. *Curt. Lond. faſc.* 2. *t.* 406. *Dickſ. H. Sicc. faſc.* 8. 10. *Lightf.* 224.

S. verna annua humilior. *Raii Syn.* 354.

COMMON in moſt parts of England on walls, thatched roofs, and dry barren places, but rare in Scotland; it ſucceeds the *Draba verna* in the ſame ſituations, flowering in May, after which it becomes ſunburnt of a blood red or mahogany colour, ſoon ſheds its ſeed, and withers away. When it happens to grow in ſhady places, it is greener, more ſlender, and longer lived.

Root annual, ſmall, and entirely fibrous. Stem various in height and luxuriance, erect, round, leafy, a little zigzag, much branched above in a panicled manner. The whole herb is clothed with projecting viſcid hairs. Leaves palmate in three ſegments, or pedate in five, tapering down into a wedge-ſhaped baſe, their margin entire, their ſubſtance tumid and fleſhy; the uppermoſt of all are lanceolate and undivided. Flowers ſmall, white, on upright ſolitary flower-ſtalks. Calyx urn-ſhaped, with ſmall teeth. Petals obovate, ſcarcely exceeding the calyx. Styles greatly divaricated.

Some have taken this for the *Paronychia* of Dioſcorides; but if the point were worth the pains of an examination, there are many plants that agree better with his ſhort and lame account. His *Paronychia* was uſed to cure whitlows. Hence this ſaxifrage has been called whitlow-graſs, a name more commonly given to *Draba verna*.



Sept.r 1.1790 Published by J.s Sowerby London

ANTIRRHINUM Cymbalaria.

Ivy-leaved Snapdragon.

DIDYNAMIA Angioſpermia.

GEN. CHAR. *Cal.* five-leaved. *Cor.* with a prominence at its baſe, pointing downwards and bearing honey. *Capſ.* two-celled.

SPEC. CHAR. Leaves heart-ſhaped, five-lobed, alternate, ſmooth. Stems procumbent.

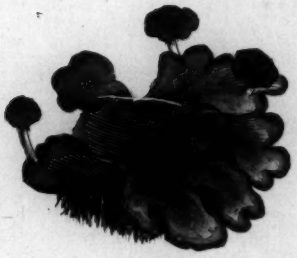
SYN. Antirrhinum Cymbalaria. *Linn. Sp. Pl.* 851. *Hudſ.* 271. *With.* 549. *Relh.* 242. *Sibth.* 194. *Curt. Lond. faſc.* 1. *t.* 45.

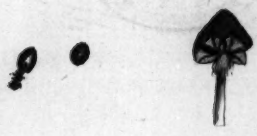
Linaria hederaceo folio glabro, ſeu Cymbalaria. *Raii Syn.* *282.

Cymbalaria italica. *Ger. em.* 529. fig. reverſed.

ALTHOUGH originally introduced into gardens from Italy, this elegant little plant has long been perfectly naturalized with us upon old walls about the ſhores of the Thames, as well as at Oxford, Cambridge, and in ſhort wherever there are any long eſtabliſhed botanic gardens; for no weed in the world takes more abſolute poſſeſſion, when once it is well rooted. It is perennial, forming a thick pendent tapeſtry, either in ſunſhine or ſhade, and flowering from May to the end of autumn.

The ſtems are trailing, very much branched, round, leafy. Every part of the herb is ſmooth, and often purpliſh. Leaves generally alternate, on longiſh curved foot-ſtalks, heart-ſhaped, five-lobed, of a darkiſh green, and not unaptly compared to thoſe of ivy. Stipulæ none. Flowers ſolitary, on ſimple axillary ſtalks, purple with a yellow downy palate, and a ſhort pale ſpur. The capſule burſts at the top in a lacerated manner, and contains ſeveral blackiſh ſeeds very much wrinkled.





Dec.r 1790 Published by J.s Sowerby London

MARCHANTIA hemiſphærica.

Hemiſphærical Marchantia.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male. *Calyx* ſalver-ſhaped, with numerous *antheræ* imbedded in its diſk.

Female. *Cal.* peltate, flowering beneath. *Capſules* burſting at their ſummit. *Seeds* attached to elaſtic fibres.

SPEC. CHAR. Calyx of the female flowers hemiſphærical, cloven into about five oval ſegments. Stalks naked at the baſe.

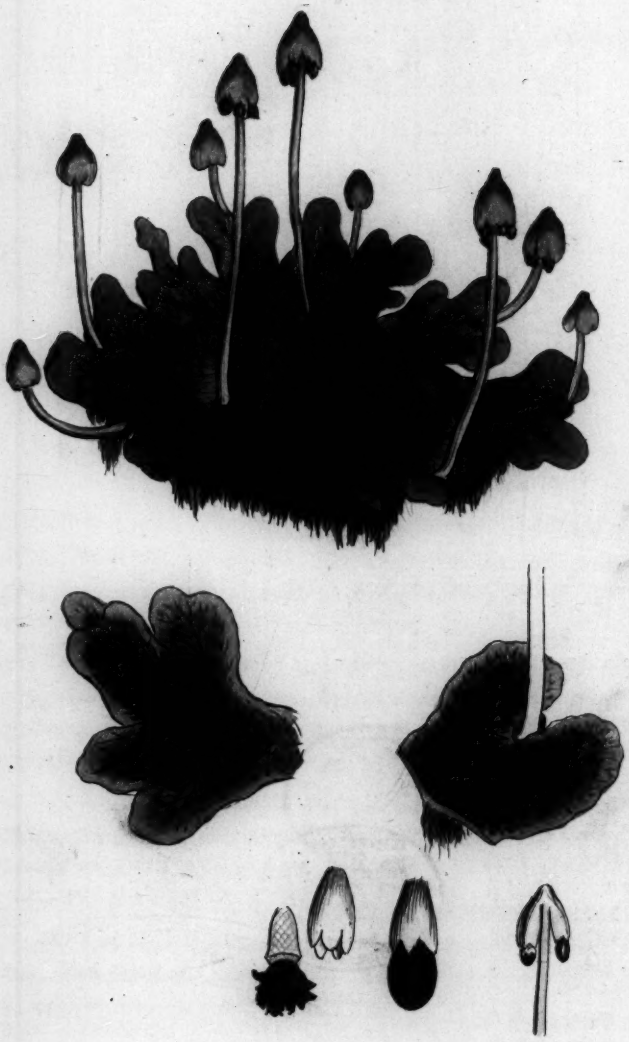
SYN. Marchantia hemiſphærica. *Linn. Sp. Pl.* 1604. *Hudſ.* 520. *With.* 885. *Lightf.* 796.

Lichen pileatus parvus, foliis crenatis. *Raii Syn.* 114. *Dill. Muſc.* 519. *t.* 75. *f.* 2.

ON the banks of rivers and ditches, about crevices of rocks, in damp but not always ſhady places, moſtly in the mountainous or northern counties, though our ſpecimens were ſent (with the following kind) from Norfolk by the Rev. Mr. R. B. Francis, F.L.S. of Holt, a gentleman from whoſe very accurate examinations of the neighbouring genus *Jungermannia* great information is to be expected.—It is perennial, producing its fructification in March.

Fronds lobed, ſpreading, and creeping by means of numerous ſlender fibres originating from the prominent mid-rib; their upper ſurface is granulated, of a fine green, often purple when expoſed to much ſun, eſpecially about the margin, and the under ſide is generally of a dark purple hue. Female fructification in green hemiſphærical heads, cut into about five oval ſegments in the margin, and ſtanding on ſhort ſtalks, which are totally deſtitute of any bracteæ or membranes at their baſe. The ſeeds are black, and are produced in black capſules with fibres from the under ſide of the head or calyx. The male flowers we have not ſeen, nor have we found them deſcribed. Micheli figures what appear to be cups of young buds like thoſe in the more common *Marchantia*. See our *t.* 210.

G.R. III.
BRITISH MUSEUM



Nov.1 1790 Published by J.t Sowerby London.

MARCHANTIA conica.

Conical Marchantia.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male. *Calyx* ſalver-ſhaped, with numerous *antheræ* imbedded in its diſk.

Female. *Cal.* peltate, flowering beneath. *Capſules* burſting at their ſummit. *Seeds* attached to elaſtic fibres.

SPEC. CHAR. Calyx of the female flowers ovate, pointed, with five marginal notches. Male flowers in ſeſſile warts.

SYN. Marchantia conica. *Linn. Sp. Pl.* 1604. *Hudſ.* 521. *With.* 885. *Relh.* 421. *Sibth.* 314.

Lichen petræus pileatus. *Raii Syn.* 114.

L. vulgaris major, pileatus et verrucoſus. *Dill. Muſc.* 516. *t.* 75. *f.* 1.

MUCH more common than the laſt, growing in damp ſhady places, but the female fructification is rarely met with. The ſeeds are perfected in March or April, and the plant is perennial.

The fronds creep as in the other ſpecies, and are of a darkiſh pellucid green, reticulated, bluntly lobed. Stalks from a cleft between the lobes, long, ſlender, of a delicate texture, ſo that with the tender conical head they look like ſmall Agarics. The head has five notches, and as many cells, each containing one black capſule. The male flowers, as Hedwig with great probability believes them, are borne on ſeparate plants in the form of ſeſſile warts towards the margin of the frond.

This ſpecies is highly aromatic, and combines with ſome *Jungermanniæ* to give that fragrant odour to the air which is perceived in graſſy walks under trees, near fountains, or among damp ſhady rocks, eſpecially after rain.

MARCHANTIA conica.

Conical Marchantia.

GEN. CHAR. Male. Calyx falver-fhaped, with numerous anthers imbedded in its disk.

Female. Cal. potate, flowering beneath. Capsules burfting at their fummit. Seeds attached to elaftic fibres.

SPEC. CHAR. Calyx of the female flowers ovate, pointed, with five marginal notches. Male flowers in fertile warts.

SYN. *Marchantia conica.* Linn. Sp. Pl. 1604. Hudf. 574. With. 815. Engl. Bot. 514.

Lichen peltatus, &c. Dill. Muf. 114.

Lichen vulgaris major, &c. Dill. Muf. 115. t. 1. f. 1.

MUCH more common than the laſt, growing in damp ſhady places, but the female fructification is rarely met with. The ſeeds are perfected in March or April, and the plant is perennial.

The fronds creep as in the other ſpecies, and are of a dark pellucid green, reticulated, ſhining below. Stalks from a clofe brownish tuft, ſlender, of a ſubfiſtule texture, ſo that when the capſules burſt they reſemble ſmall Agarics. The black capſules (which are the female flowers, as Hedwig with great probability believes them) are borne on ſeparate plants in the form of fcaffolds towards the margin of the frond.

This ſpecies is highly aromatic, and combines with ſome perſons to give that fragrant odour to the air which is perceived in grafſy walks under trees, near fountains, or among damp ſhady rocks, eſpecially after rain.

SYSTEMATICAL INDEX

TO

VOL. VII.

Monandria.

	Tab.
CHARA hiſpida	463
Zoſtera marina	467

Diandria.

Veronica alpina	484

Triandria.

Crocus nudiflorus	491
Phalaris phleoides	459
Feſtuca duriuſcula	470
Bromus erectus	471

Tetrandria.

Epimedium alpinum	438
Ilex Aquifolium	496

Pentandria.

Myoſotis ſcorpioides	480
Menyanthes trifoliata	495
Verbaſcum pulverulentum	487
Viola paluſtris	444
—— lactea	445
Chironia pulchella	458
Gentiana verna	493
Bupleurum tenuiſſimum	478
Cicuta viroſa	479
Sambucus Ebulus	475
—— nigra	476
Myoſurus minimus	435

Hexandria.

Allium oleraceum	488
Ornithogalum pyrenaicum	499

Octandria.

Vaccinium Myrtillus	456
Polygonum amphibium	436
Adoxa Moſchatellina	453

Decandria.

Chryſoſplenium oppoſitifolium	490
Saxifraga nivalis	440
—— granulata	500
—— palmata	455
—— tridactylites	501
—— hypnoides	454
Silene nutans	465
Ceraſtium alpinum	472
—— latifolium	473

Dodecandria.

Euphorbia portlandica	441
—— Characias	442

Icoſandria.

Dryas octopetala	451

Didynamia.

Ajuga alpina	477
—— reptans	489
Mentha rotundifolia	446
—— hirſuta	447
—— ſativa	448
—— gentilis	449
Antirrhinum Cymbalaria	502
Linnæa borealis	433

Tetradynamia.

Cardamine haſtulata	469
—— hirſuta	492
Eryſimum Barbarea	443
Cheiranthus ſinuatus	462

Diadelphia.

Vicia lutea	481
—— hybrida	482
—— lævigata	483
Aſtragalus uralenſis	466

Syngeneſia.

Tragopogon pratenſis	434
Prenanthes muralis	457
Erigeron alpinum	464

Gynandria.

Serapias enſifolia	494
—— rubra	437

Monœcia.

Littorella lacuſtris	468
Bryonia dioica	439

Cryptogamia.

Phaſcum ſerratum	460
Marchantia hemiſphærica	503
—— conica	504
Lichen querneus	485
—— Hæmatomma	486
—— punctatus	450
—— hiſpidus	452
—— ſcrobiculatus	497
—— croceus	498
Tremella Noſtoc	461
Fucus filiquoſus	474

G.R
III.
BRITISH MUSEUM

ALPHABETICAL INDEX

TO

VOL. VII.

	Tab.
ADOXA Moſchatellina	453
Ajuga alpina	477
——— reptans	489
Allium oleraceum	488
Antirrhinum Cymbalaria	502
Aſtragalus uralenſis	466
Bromus erectus	471
Bryonia dioica	439
Bupleurum tenuiſſimum	478
Cardamine haſtulata	469
——— hirſuta	492
Ceraſtium alpinum	472
——— latifolium	473
Chara hiſpida	463
Cheiranthus ſinuatus	462
Chironia pulchella	458
Chryſoſplenium oppoſitifolium	490
Cicuta viroſa	479
Crocus nudiflorus	491
Dryas octopetala	451
Epimedium alpinum	438
Erigeron alpinum	464
Eryſimum Barbarea	443
Euphorbia Characias	442
——— portlandica	441
Feſtuca duriuſcula	470
Fucus filiquoſus	474
Gentiana verna	493
Ilex Aquifolium	496
Lichen croceus	498
——— Hæmatomma	486
——— hiſpidus	452
——— punctatus	450
——— querneus	485
——— ſcrobiculatus	497
Linnæa borealis	433
Littorella lacuſtris	468
Marchantia conica	504
——— hemiſphærica	503
Mentha gentilis	449
——— hirſuta	447
——— rotundifolia	446
——— ſativa	448
Menyanthes trifoliata	495
Myoſotis ſcorpioides	480
Myoſurus minimus	435
Ornithogalum pyrenaicum	499
Phalaris phleoides	459
Phaſcum ſerratum	460
Polygonum amphibium	436
Prenanthes muralis	457
Sambucus Ebulus	475
——— nigra	476
Saxifraga granulata	500
——— hypnoides	454
——— nivalis	440
——— palmata	455
——— tridactylites	501
Serapias enſifolia	494
——— rubra	437
Silene nutans	465
Tragopogon pratenſis	434
Tremella Noſtoc	461
Vaccinium Myrtillus	456
Verbaſcum pulverulentum	487
Veronica alpina	484
Vicia hybrida	482
—— lævigata	483
—— lutea	481
Viola lactea	445
—— paluſtris	444
Zoſtera marina	467

G.R. III.
BRITISH MUSEUM

INDEX

OF THE ENGLISH NAMES

IN VOL. VII.

	Tab.
Avens, mountain	451
Barrenwort	438
Bilberry, or Bleaberry	456
Brome-graſs, upright	471
Bryony, red-berried	439
Buckbean, common	495
Bugle, alpine	477
—— common	489
Canary-graſs, cat's-tail	459
Catchfly, Nottingham	465
Centaury, dwarf branched	458
Chara, prickly	463
Chickweed, alpine	472
——— broad-leaved rough	473
Cowbane, water	479
Crocus, naked-flowering	491
Danewort	475
Elder, common	476
—— dwarf	475
Feſcue-graſs, hard	470
Fleabane, alpine	464
Fucus, podded	474
Garlick, ſtreaked field	488
Gentian, ſpring	493
Goat's-beard, yellow	434
Graſs-wrack, common	467
Hare's-ear, ſlender	478
Helleborine, narrow-leaved	494
——— purple	437
Hemlock, water	479
Holly, common	496
Ladies' cuſhion	454
——— ſmock, alpine	469
——— hairy	492
Lettuce, ivy-leaved	457
Lichen, bloody ſpecked	486
——— dotted	450
——— oak	485
Lichen, pitted	497
——— prickly	452
——— ſaffron-coloured	498
Linnæa, two-flowered	433
Marchantia, conical	504
——— hemiſphærical	503
Milkwort, hairy mountain	466
Mint, hairy water	447
—— marſh, whorled	448
—— red	449
—— round-leaved	446
Moſchatell, tuberous	453
Mouſe-tail	435
Mullein, yellow hoary	487
Perſicaria, amphibious	436
Phaſcum, ſerrated	460
Rocket, yellow	443
Saxifrage, cluſtered alpine	440
——— golden, oppoſ. leaved	490
——— moſſy	454
——— palmate	455
——— rue-leaved	501
——— white	500
Scorpion-graſs, mouſe-ear	480
Shore-weed, plantain	468
Snapdragon, ivy-leaved	502
Speedwell, alpine	484
Spurge, Portland	441
——— red	442
Star of Bethlehem, ſpiked	499
Stock, ſea	462
Thorough-wax, ſlender	478
Tremella, ground	461
Vetch, hairy-flowered yellow	482
—— rough podded yellow	481
—— ſmooth-podded ſea	483
Violet, cream-coloured	445
——— marſh	444

G.R. III.
BRITISH MUSEUM